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LIFELINE: A TOOL FOR LOGISTICS PROFESSIONALS

June 2017

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LIFELINE: A TOOL FOR LOGISTICS PROFESSIONALS

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ABSTRACT

This proof of concept study is designed to provide a basic understanding of the Supply Corps community, provide a comparative analysis of the organizational culture utilizing the competing values framework (CVF), and examine the impact of mentoring within an organization. Active duty and retired Supply Corps officers were surveyed on their perception of the community via questions that were created with the CVF as a guide. Our results show that there is a current demand for additional artifacts that will provide for a more balanced community. *LifeLine*, a proposed mobile application, is a recommended solution to encourage an evolving Supply Corps populace to seek educated, informed assistance when faced with adversity. The application also promotes open communication within the Supply Corps community for the growth of its junior officers and inspires senior officers to make an investment in the community by sharing their corporate knowledge with the next generation of officers through mentoring.

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LIST OF ACRONYMS AND ABBREVIATIONS

ATM	automatic teller machine
CAPT	Captain
CDR	Commander
COCOMS	combatant commands
CVF	competing values framework
DFAR	Defense Federal Acquisition Regulation
DLA	Defense Logistics Agency
FAR	Federal Acquisition Regulation
FITREP	Fitness Report
FLC	Fleet Logistics Centers
GDMA	Glenn Defense Marine Asia
GLS	NAVSUP Global Logistics Support
GPC	government purchase card
LS	logistic specialist
LT	Lieutenant
LTJG	Lieutenant Junior Grade
MOE	margin of error
MWR	Morale, Welfare and Recreation
NAVPERSCOM	Naval Personnel Command
NAVSUP	Navy Supply Systems Command
NAVSUP-BSC	NAVSUP Business Systems Center
NAVSUP-WSS	NAVSUP Navy Weapons System Center
NEXCOM	NAVSUP Navy Exchange Command
NSCS	Navy Supply Corps School
NPS	Naval Postgraduate School
ODC	officer data card
OP	Office of Personnel
OSR	officer service record
PSR	performance service record
TYCOM	type commanders

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I. INTRODUCTION

The Navy Supply Corps has always been built on the pillars of mentorship, close-knit relationships, and logistical readiness for the warfighter. A Supply Corps officer must often take quick and decisive action to procure items while following the guidelines and regulations that are set in place to prevent fraud, waste, and abuse. Consequently, they sometimes suffer from the trepidation of readiness at all costs, which puts them in conflict with the line officers they report to at their command. Fear of negative fitness reports or having to tell their superior officer “no” can force even the best Supply officer to make potentially bad decisions that are against rules and regulations. To make matters worse, some will find ways to go around normal acquisition procedures or find ways to straddle the line of what is authorized and what is considered unclear.

Mentorship within the Supply Corps makes the organizational culture very strong. The community takes pride in encouraging junior officers to reach out to mentors to ask for career advice or assistance with work-related issues. Requests for help or assistance from others are not anonymous, however. Therefore, some officers may not actively seek assistance knowing that there are no avenues to receive it anonymously. Others may be intimidated or feel awkward reaching out to an officer who is superior in rank for help. The consequences of not having a network to ask for anonymous help could potentially cause an officer to make improper decisions or break the rules put in place.

Exploring better ways to bridge the gaps between readiness, clarification of rules and regulations, improving mentorship, and finding innovative ways to continue developing and fostering our strong culture is what led us to develop a proof of concept mobile application called *LifeLine*. The idea of a mobile application that you can access on your phone or tablet is nothing new to the Supply Corps. However, *LifeLine*'s main focus is on improving mentorship and innovation within our community.

A. ACCOUNTABILITY AND RESPONSIBILITY

What separates the Supply Corps from other communities in the Navy are the financial accountability and the responsibility that comes with the job. Rear Admiral

David Frost once said, “Junior officers in the Supply Corps have more responsibility, more personal accountability, and more opportunities than any other young naval officers” (Rodengen, 2015, p. 16). A Supply officer often manages a several-million-dollar budget and is entrusted by the taxpayers to properly procure items deemed mission essential. Supply Corps officers must reconcile their budgets monthly for overages and underages. Often, charges do not show up for several months, which requires careful budgeting throughout the quarter to plan for unexpected charges. This can be particularly challenging at the end of the fiscal year, since sufficient amounts of the previous year’s money must have been held in reserve to cover these expenses as opposed to using the current year’s funds.

In addition, a Supply Corps officer must carefully manage ship and aircraft repairable and consumable parts. Each of these parts requires proper safekeeping and often can cost in the tens of thousands of dollars. To ensure parts are properly accounted for, a rigorous inventory schedule is set up for the logistics team to maintain. The enlisted logistic specialists (LSs) will spot check if a part is in the right location from the computer database or count to make sure the right amount is there. The Supply officer verifies and remedies any discrepancies found from the inventory schedule. The LSs will also check items for shelf life and dispose of items that exceed it. If the ship requires a part, the LS will go to the proper location and count the remaining quantity to ensure that proper management of parts are accounted for and that they are in the right locations on the ship.

Food provisions and ship’s store items are managed similarly to parts. Food provision inventories on larger ships can often cost in the hundreds of thousands of dollars. A Supply Corps officer must ensure food is properly stored based on its need for temperature control, and is managed in a manner that prevents spoilage and ensures its use before expiration.

A Supply Corps officer assigned as the Sales officer must accurately maintain retail inventory and mark down slow-moving items to increase sales. A particularly important aspect of a Sales officer’s job is to manage vending machine operations and ship’s emblematics, which have intrinsic value and are often prone to theft. A Sales

officer mitigates this by completing random audits of inventory in storerooms and in the retail outlet to identify inventory shortfalls and ensure merchandise integrity.

Disbursing officers serve as the “bank” for the ship. They carry cash currency and U.S. treasury checks, which are stored in a secured safe. They also have the ability to issue cash to sailors or receive cash transactions. Advancements in monetary technology have helped limit the amount of physical currency a Disbursing officer needs to maintain. Through the Navy Cash Card program Navy Cash Card users can load their issued cards with electronic funds from their bank accounts and use the card instead of cash to purchase items from the ship’s retail outlets, pay for officer meals, or MWR tickets. In addition, the magnetic strip on the Navy Cash card can be “used in 23 million MasterCard acceptance locations in over 210 countries and territories globally and in more than 1,000,000 ATMs in over 120 countries worldwide” (“Introduction: Navy and Marine Cash,” 2016). In the end, use of Navy Cash has replaced much of the need for physical cash on a ship, reducing the overall accountability of the Disbursing officer. Random audits by disinterested parties are still required to ensure funds and checks are properly accounted for in the safe.

B. MISAPPROPRIATIONS AND UNETHICAL BEHAVIOR IN THE SUPPLY CORPS

The Supply Corps has not been immune to misappropriations of funds and unethical behavior from its officers. Finding ways to get around the rules dates back to Navy’s Purveyor of Public Supplies, Tench Francis, who is considered to be the first United States Navy Supply Officer. On one occasion, Francis requested \$35,000 in cash to pay for carpenters to build ships without going through the proper channels of authority (Allston, 1995). The vast amount of taxpayer’s money that has been entrusted and its directed authority to obligate these funds has been abused at times. A plethora of federal and departmental rules and regulations have been put in place to prevent misuse of funds and serve as guidelines for Supply Corps officers to follow.

The Federal Acquisition Regulation (FAR) and the Defense Federal Acquisition Regulation (DFAR) are two of the main documents that the Supply Corps officer is

required to follow when procuring material, creating a contract, or requesting services. Navy Supply Systems Command (NAVSUP) and Type Commanders (TYCOM) often will employ further restrictive rules and regulations that a Supply Corps officer must follow.

One of the biggest infractions a Supply Corps officer can make is an unauthorized commitment, “an agreement that is not binding solely because the government representative who made it lacked the authority to enter into that agreement on behalf of the Government” (Federal Acquisition Regulation [FAR] 1.602-3(a)). For example, if a Supply Corps officer were to contact a vendor to procure a set of items and the items were shipped by the vendor to the officer and received by the officer before the officer had completed the items’ purchase, this could be viewed as an unauthorized commitment.

Another common infraction occurs with use of the Government Purchase Card (GPC). The GPC acts as a credit card for commands to purchase material and certain services below the micro-purchase threshold of \$3,500 (FAR 2.101). There have been instances of cardholders conducting split purchases for supplies or services. A split purchase is “aggregating more than the micro-purchase threshold and may not be broken down into several purchases less than this threshold merely to avoid any requirement that applies to purchases exceeding the micro-purchase threshold” (FAR 13.003(c)(2)(ii)). For example, a cardholder may not ask a merchant to run the GPC twice on a supply order totaling \$7,000 to stay within the \$3,500 threshold for micro-purchases. In the same example, a GPC cardholder cannot make multiple purchases totaling over \$3,500 with the same merchant and on the same day in an attempt to portray different purchase requirements. However, regulations within the micro-purchase realm could soon change. The 2017 National Defense Authorization Act proposes to raise the micro-purchase threshold from \$3,500 to \$5,000 (H. Rep. No. 114–840, § 2338, 2016). This will come as a relief for many Supply Corps officers, as it will help increase productivity and time savings by allowing them to procure more from one merchant in a given transaction.

While many of the above examples are minor infractions of rules and regulations, some high-ranking Supply Corps officers have been caught in scandals that discredit the high ethical standard that the Navy represents. These scandals tarnish the integrity of the

community and trustworthiness as the business managers for the Navy. They also put these actions in the spotlight of the national media.

One of the largest and ongoing scandals that involve Supply Corps officers is the incident involving Glenn Defense Marine Asia (GDMA). The president of GDMA at the time was Leonard Glenn Francis, nicknamed “Fat Leonard.” GDMA used its influence in Asian ports to “lure officers for information on ship’s schedules to overbill the Navy for port charges and material in excess of \$20 million in exchange for prostitutes, hotels, and meals” (Perry, 2015). A few mid-grade Supply Corps officers have been investigated in the scandal, but even more concerning are the two admirals who were involved as well. In one instance, a former aircraft carrier Supply officer was censured by Defense Secretary Ray Mabus for accepting gifts from GDMA (Slavin, 2015). Another former aircraft carrier Supply officer was charged in federal court for lying to criminal investigators about receiving gifts from Fat Leonard. To date, that Supply Corps officer has been the highest ranking naval officer charged in the GDMA scandal (Cavas, 2016).

C. OBJECTIVES OF *LIFELINE*

Recent issues within our community and our own experiences as three Supply Corps officers with more than 46 combined years of active duty service have sparked the authors’ interests in searching for ways to better improve the innovation in our community. The objectives of *LifeLine* are to create a mobile application that officers can use on their smart phones or tablet device to search for assistance on policy clarification, propose new innovative ideas, or seek out a new mentor. The mobile application’s uses, features, and limitations will be further discussed in Chapters VI and VII.

Much of the analysis we decided to use to evaluate the Supply Corps organization was critically investigated using Quinn and Rohrbaugh’s Competing Values Framework (1981–1983). This framework helped us gauge each of the model’s four quadrants to find where the Supply Corps excels and where we think the community needs to improve. We also wanted to see if there would be any new opportunities to increase innovation and methods to address the challenges Supply Corps officers face when making quick decisions in the name of readiness.

D. *LIFELINE*: A SOLUTION FOR READINESS ASSISTANCE AND MENTORSHIP

We propose that the *LifeLine* mobile application can be used by the Supply Corps as another tool to assist in addressing many of the issues that a Supply Corps officer faces daily when he/she are unclear about the rules or want better clarification. Additionally, it helps to bridge the professional networking gap by providing junior officers with ways to gain new mentors based on defined search parameters.

The research questions we intend to address in this project include the following:

- Do Supply Corps officers feel pressured by their superiors to procure or acquire material that might conflict with rules and regulations?
- Do Supply Corps officers feel uncomfortable seeking help from their next higher echelon commands, and do they ask for help from fellow officers at their command?
- Which form of mentoring do officers utilize more often?
- How much interest is there in the Supply Corps community to create a mobile application that they can use to propose questions anonymously or search for a mentor through a search parameter database?
- Would the average Supply Corps officer consider using a mobile application like *LifeLine*?

We intend to answer our research questions through a systematic survey sent to active duty and retired Supply Corps officers that asks respondents questions about various work-related topics they may have experienced in the past. In addition, we have asked them to weigh in on their mobile application usage and if they might find value in an application like *LifeLine*.

The basis of Chapter II provides an abbreviated outline of the typical career path of a Supply Corps Officer and ways the community uses mentoring as a valuable resource. Chapter III provides supporting research on organizational structures, mentoring, and applying the Supply Corps community into the Competing Values framework model. Chapters IV and V address the methodology of the survey and the data analysis, respectively. Chapter VI details the proof of concept that we envision *LifeLine*

can provide to the Supply Corps. Finally, Chapter VII explains how *LifeLine* might be used in the mobile application world and offers a final recommendation.

LifeLine will have multiple practical applications to address the ability to communicate anonymously concerning policy issues, provide feedback or a recommendation to the highest levels in the Supply Corps, or seek out mentors based on searchable fields. By analyzing the culture within the Supply Corps using existing research models, we hope to show that we can help encourage the community to become more innovative and solve many of the existing ethical dilemmas that junior officers often face.

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II. ORGANIZATIONAL STRUCTURE OF THE SUPPLY CORPS

The Supply Corps' primary function is to be the logistics and financial managers of the Navy. They are entrusted to obligate government funds, procure new material, manage inventory, initiate contracts, and disburse money. They also manage the ship's service divisions, which include food service, laundry service, barber shops, vending machines, coffee shop, and afloat merchandise stores.

The organizational structure of the Supply Corps is very similar to other Navy organizations. It is organized by a top echelon headquarters with subordinate commands that support the fleet at the strategic level, all the way down to tactical operations. The Navy Supply Systems Command structure is shown in Figure 1.

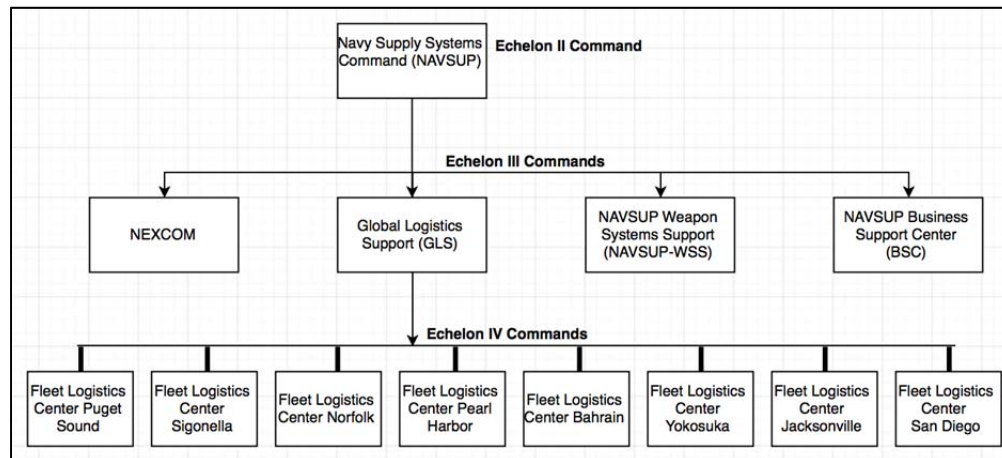


Figure 1. Naval Supply Systems Command Enterprise Organization Chart.

At the top of the command structure is the Navy Supply Systems Command, often referred to by its acronym, NAVSUP. Considered an Echelon II command, the headquarters for NAVSUP are in Mechanicsburg, PA. It is led by a Navy Supply Corps officer who has attained the rank of Rear Admiral. Some of NAVSUP's responsibilities include

providing material support for naval and allied surface ships, providing integrated logistics services in support of new ship construction and repair

and modernization efforts of submarines, aircraft, and expeditionary forces, providing husbanding services for naval and allied forces, and providing bulk petroleum, oil, and lubricants logistics support services. (Office of the Chief of Naval Operations [OPNAV], 2012, Encl. 1, p. 1)

Under NAVSUP headquarters is the Echelon III commands, which include NAVSUP Weapons Systems Support (NAVSUP-WSS), NAVSUP Navy Exchange Command (NEXCOM), NAVSUP Business Systems Center (NAVSUP-BSC), and NAVSUP Global Logistics Support (GLS).

Under the NAVSUP GLS umbrella are the Echelon IV commands called Fleet Logistics Centers (FLC). There are currently eight locations around the world in fleet concentrated areas: Bahrain, Jacksonville, Norfolk, Pearl Harbor, Puget Sound, San Diego, Sigonella, and Yokosuka. The role of each FLC is managing NAVSUP FLC operations including “contracting, fuels, global logistics services, hazardous material management, household goods movement support, integrated logistics support, material management, postal, regional transportation, warehousing, logistics operations, and ammunition; and provides base supply support for Navy installations worldwide” (NAVSUP, n.d.).

A. SUPPLY CORPS CAREER MILESTONES

All Supply Corps officers start their career journey at Navy Supply Corps School in Newport, Rhode Island. At this school, junior officers learn the basics of requisitioning, inventory management, food service, disbursing, and leadership. Upon graduation, the Supply Corps School Commanding Officer certifies the new graduates “Ready for Sea,” and they are sent out to the fleet for their first tour. The basic career path from Supply School to Captain and beyond is shown in Figure 2.

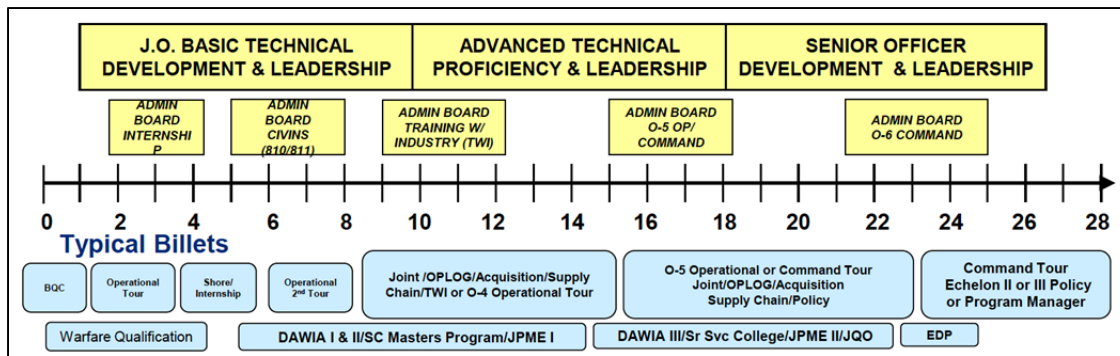


Figure 2. Typical Professional Milestones over a Supply Officer's Career.
Source: Daniels (2016).

First operational tour Supply Corps officers usually are sent to a ship. The type of ship varies based on the officer's choice of platform and whether he/she screened for independent duty during Supply Corps School. The majority of graduates will be sent to surface ships like destroyers, cruisers, L-Decks, or aircraft carriers. On average, these platforms each have two to twelve Supply Corps officers to support the ship. This support of Supply Corps officers helps even the newest officers adjust and learn their jobs. The aircraft carrier supply department tends to have many Supply Corps officers available to go to for advice and assistance. However, the smaller the ship, the fewer Supply Corps officers onboard, limiting the number of available mentors from whom to gain assistance. These new Supply Corps officers are called "Division Officers," since they will be in charge of a division in the Supply Department. Division Officers run the following divisions in supply: stock control, shipping and receiving, food service, ship's store, disbursing, hotel services, aviation supply, hazardous material management, and quality assurance. However, most first-tour division officers will start out in services divisions such as disbursing, ship's store, hotel services, or hazardous material management. Officers will usually be promoted from an ensign to lieutenant junior grade (LTJG) during their first tour.

Independent duty officers from the Navy Supply Corps School (NSCS) are sent on their first tour to submarines and mine countermeasure ships. These officers are screened based on their academic performance at NSCS and during one-on-one screenings with senior Supply Corps officers who ask scenario-based questions to elicit

how the officers would react to certain situations. Some topics they are asked about include fraternization, ethical issues, and leadership dilemmas. The goal is to measure the independent duty officers' ability to operate effectively and ethically in stressful situations without any other Supply Corps officer onboard to fall back on for help. Supply Corps officer carry a great deal of responsibility as they will be solely relied upon by their command's leadership for logistical related issues, and must act as one of the four department heads. This creates a dynamic that the other department heads on the boat are either senior lieutenants or lieutenant commanders while the Supply officer is only an ensign or lieutenant junior grade. Even though the Supply officer is considered junior, the designation carries equal positional authority for making decisions in regard to logistics.

Screening by senior Supply Corps officers is not foolproof. Many times students show extensive promise and maturity, only to go to their submarine/ countermeasure ship and be relieved later by the Commanding Officer for lack of confidence. As one former Supply Corps instructor who asked to remain anonymous pointed out, "Sometimes the best responses from our students cannot be a predictor for future performance. They may be able to create a great solution in their head, only to not be able to act on it when it comes down to it."

Upon completion of their first operational tour, Supply Corps officers will have the opportunity to go to a shore duty assignment or to an internship. Internships are conducted at major supply commands that deal directly in contracting and acquisition, fuels, information technology, business financial management, and operational joint logistics. Internships are set up for junior Supply Corps officers to gain a defined discipline in the community's core functions so that they can apply their new skills to greater responsibilities and knowledge sets in the future. During this time, an officer will usually be promoted from LTJG to lieutenant (LT).

A Supply Corps officer's third tour will usually be a second operational tour on a ship. The officers who did not do an independent duty on their first operational tour will now have the opportunity to lead as a department head. Officers who may have done an independent duty assignment will now usually do their second operational tour as

Division Officers onboard an amphibious ship or aircraft carrier in readiness divisions. It may seem counterintuitive for independent duty officers who were once department heads to now become Division Officers, yet the size and sheer magnitude of responsibility is now greater. For example, a submarine Supply Corps officer may have had 12 enlisted personnel under his/her supervision. On a large-deck platform such as an aircraft carrier, as a Division Officer he/she may now supervise 45–55 enlisted personnel.

Since the 9/11 attacks, there has been a shift to the Supply Corps' supporting expeditionary and Special Forces missions around the world. This has opened billets that were traditionally not open to Supply Corps officers. Expeditionary tours count as operational tours, so Supply Corps officers have the opportunity to go as a first- or second-tour officer. The second-tour officer assignments usually are as department heads of an expeditionary unit. The Supply Officer will often deploy with the unit to conduct a mission or be forward-deployed to support operations.

Around the completion of the second operational tour, the Supply Corps officer faces his/her first time in front of a promotion board to make lieutenant commander (LCDR). The promotion board looks over the officer's record for performance, quality of tours, and the number of operational tours he/she has done. Although a department head tour is not required to make LCDR, it is highly desired.

The next career milestone for a Supply Corps officer is a Navy-funded graduate school program. The three largest programs that Supply Corps officers attend are the Naval Postgraduate School (NPS), a Top-30 business school (810), or Kansas University (811) for a petroleum management MBA. The Supply Corps community makes a concerted effort to ensure all of its officers are afforded a graduate education, and this is one of the main milestones to be considered for promotion to commander (Office of the Assistant Secretary of the Navy, 2016).

After graduation, a Supply Corps officer often goes to his/her next duty station in a "payback" tour. This tour allows the officers to be placed in their graduate degree specialty and attain further career development. A Supply Corps officer also has the

option to go back to an operational sea tour as a Principal Assistant or Assistant Supply Officer onboard an aircraft carrier or amphibious ship.

Supply Corps officers are next screened for promotion to commander (CDR). Based on the FY17 promotion statistics, only 70% of eligible officers were selected for CDR (NAVSUP Office of Personnel, personal communication, June 2016). Upon attainment of the CDR rank, a Supply officer transitions from a junior officer to a senior officer. A CDR also has the opportunity to be screened on another board by the O-5 Operational/Command administrative board. Commanders screened for this board may be looked at twice in consecutive years, and 29% were selected in fiscal year 2016 (Daniels, 2016). This highly competitive board screens a CDR to be the head Supply Officer on an aircraft carrier, amphibious ship, submarine tender or a Commanding Officer of an expeditionary support unit. For example, the Supply Officer on an aircraft carrier will be in charge of three LCDRs, three to five LTs, two to three ensigns or LTJGs, and all enlisted personnel in the department. A CDR not selected after their second look on the O-5 Operational/Command administrative board also has the opportunity to screen for command ashore (OP Roadshow, personal communication, 2016). Command ashore billets serve at smaller supply entities such as Defense Logistics Agency (DLA) distribution depots.

The promotion board for Captain (CAPT) is even more competitive than the LCDR and CDR boards, with only 62% being selected during the FY17 promotion board (NAVSUP Office of Personnel, personal communication, April 2016). Supply Corps captains are screened on a board for major ashore commands such as Fleet Logistics Centers or one of the Defense Contracting Management Agencies (OP Roadshow, personal communication, 2016). There are limited places that a Supply Corps captain can be a commanding officer. The CAPTs who do not serve in command roles are found in various commands, usually leading the Supply Corps officers that work there.

The final promotion board for a Supply Corps officer is to the rank of rear admiral (lower half), rear admiral, and then to vice admiral. Very few Supply Corps officers ever will achieve the rank of admiral due to the limited number of openings. In fact, only two Supply Corps officers were selected for rear admiral (lower half) on the FY17 Staff

Corps board (Davidson, 2016). One-star admirals will usually fill jobs at NAVSUP WSS, DLA and its inventory control points, Fleet Commands, and the many Combatant Commands (COCOMs).

The Chief of the Supply Corps is a two-star admiral who acts as the Commander of the Supply Corps. The Supply Corps is only authorized one three-star billet, and there have been only 20 individuals to attain this rank (Supply Corps Newsletter [SCNEWSLTR], 2015). When there is a three-star Supply Corps officer present, he/she will usually serve in a joint role concerning logistics while the Chief of the Supply Corps two-star admiral is still in charge of the community.

B. SUPPLY CORPS MENTORING

One of the unique traits of the Supply Corps community is the close-knit bond of professional relationships abundant wherever an officer is located. The Supply Corps highly encourages young officers to begin networking early in their careers. Senior Supply Corps officers are also encouraged to have office hours dedicated to mentoring young officers who may come through their door.

The Supply Corps uses two forms of mentoring: formal and informal. We define formal mentoring as being assigned a mentor by the Supply Corps. This often occurs at Navy Supply Corps School, where a student is assigned to a mentor by the school. Students are encouraged to write an introduction email and pass on their contact information for where they are headed next. The mentor, or protégé, might be assigned from any geographical location across the world. Over the years, other attempts have been made by Supply Corps leadership to revamp the formal mentoring program. One example of this was assigning junior officers a new mentor based on their geographical location. The purpose of this was to allow junior officers to be able to have office calls and face-to-face interactions with their mentors to build professional relationships. We define informal mentoring as junior officers seeking out their own mentors to improve their professional networks. This can be accomplished through office calls, reaching out to find the most senior Supply Corps officer at a base, attending official or unofficial

functions, or through a Navy Supply Corps Foundation chapter. This allows junior officers to seek out their mentor(s) of their own choosing.

The Supply Corps provides many outlets to meet and interact with fellow officers. These official functions include the annual Supply Corps birthday ball, Supply Corps Foundation events, and the Road Show. Every large geographical area has a Supply Corps Foundation where fellow officers meet to conduct community service projects or attend cohesive recreational activities. While membership is voluntary, most Supply Corps officers in the area participate in some way. The Road Show is an annual meeting conducted by the Supply Corps Office of Personnel (PERS-4412) that travels to several of the largest geographical areas, and provides a “snapshot” of what is going on in the Supply Corps. This includes a detailed presentation on promotion rates, major changes in the community, how to achieve career milestones, and an opportunity to meet with your detailer for career advice.

Mentoring usually occurs through an office call. During this session, an officer brings in his/her record consisting of the Officer Data Card (ODC), Performance Service Record (PSR), Officer Service Record (OSR), and their Fitness Reports (FITREP). The mentor usually will go over these documents for discrepancies and offer advice on new skillsets the junior officer should strive to get. The mentor will also often recommend new duty stations that the junior officer should look to go to next. This allows a relationship to form where an officer can go to the senior officer for professional advice or help. Having a senior mentor also helps when it comes to searching for a new duty station, since that officer might put in a recommendation with the new gaining command.

Neither formal and nor informal mentoring are without shortfalls. In many instances, mentors assigned at Navy Supply Corps School were either close to their retirement or too far from the protégé they were assigned to at the time. In the newer initiative of being assigned a mentor in your geographical area, junior officers might lose touch with them when they or the mentor transfer to another duty station. Informal mentoring forces the junior officer to be proactive in seeking out mentors. This might be a bit tedious to the timid or uninformed Supply Corps officer who must rely on social skills to develop their professional network.

III. LITERATURE REVIEW

On analysis, the Supply Corps' organizational culture is no different than other corporations, institutions, or entities. The Supply Corps has its own values and characteristics that make up its foundation. In particular, it prides itself on its culture and willingness to reach out and build lasting relationships through networking and having personnel attend career building workshops such as the Supply Corps Roadshow. The emphasis on mentoring junior officers is another important characteristic of the Supply Corps' organizational culture.

Organizational culture can be defined in many different ways. Schein (1998, p. 7) defines it as "a pattern of basic assumptions, invented, discovered or developed by a given group," that "learns to cope with its problems of external adaptation and internal integration," "worked well enough to be considered valid," and "is to be taught to new members as the correct way to perceive, think, and feel in relation to those problems." Bate (1984, p. 45) suggests organizational culture is a "set of generalized assumptions and beliefs about those characteristics of the organization that distinguish it from other organizations." Alvesson and Sveningsson (2008, p. 39) argue that the "extent to which organizational members identify with the organization is important for whether a more distinct organizational culture emerges" (p. 39).

In addition, artifacts play a large role in defining organizational culture. Artifacts can take on implicit or explicit meanings, including "mission statements, memos, slogans, rites, rituals, and ceremonies" (Howard, 1998, p. 232). The Supply Corps carries many unique cultural artifacts that separate it from other Navy communities. For example, Supply Corps officers wear on their left collar a gold oakleaf insignia, which signifies to everyone that they are indeed a Supply Corps officer. No other designator wears this insignia, which makes this an artifact distinctive to the Supply community. Another example of an artifact unique to the community is the Supply Corps motto, "Ready for Sea." This motto explicitly states that, no matter what, the Supply Corps will always do what it takes to support readiness to the warfighter.

A. FITTING THE SUPPLY CORPS ORGANIZATION INTO THE COMPETING VALUES FRAMEWORK

Organizational culture can be analyzed using the Competing Values Framework (CVF) model (Quinn & Rohrbaugh, 1981). Figure 3 is a graphical representation of the CVF. This model allows an organization to be categorized into a quadrant based on its cultural values, structure, ingenuity, and its ability to achieve common goals. The flexibility of the model's application motivated our decision to use it to analyze the Supply Corps' organizational culture.

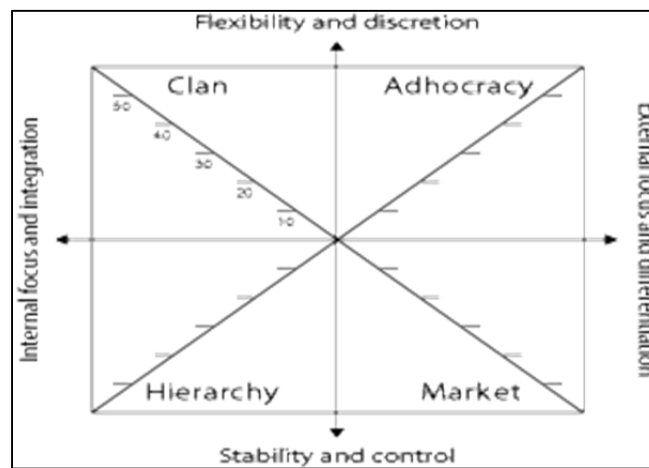
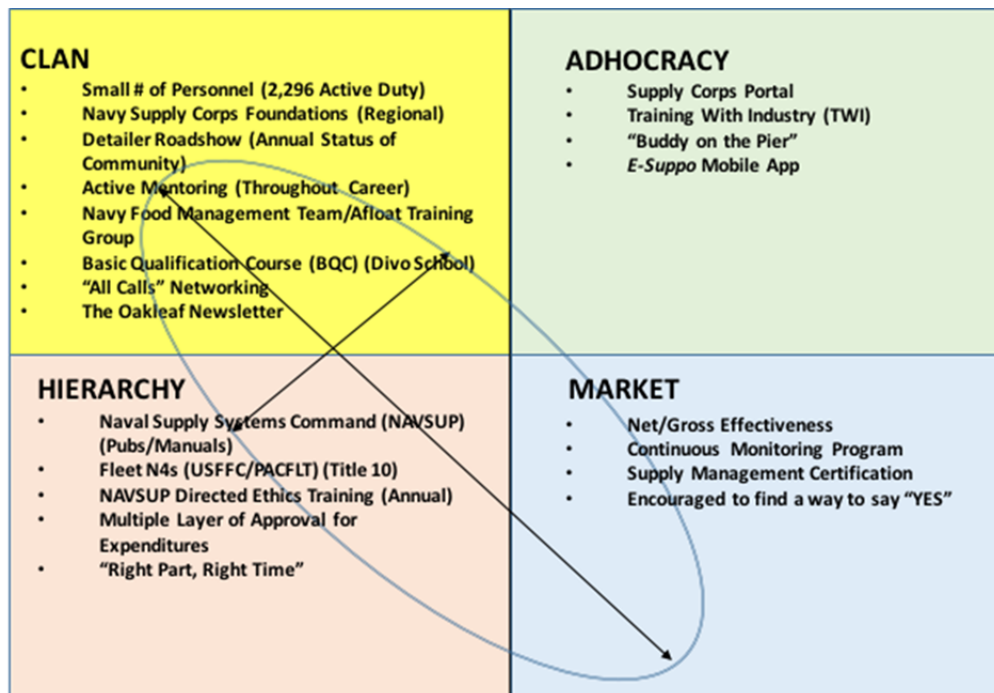


Figure 3. Competing Values Framework Model.
Source: OCAI (n.d.)

Figure 4 is a graphical representation of where we think the Supply Corps culture characteristics and values align with each of those in Quinn and Rohrbaugh's CVF model. Belasen and Frank (2008) argue that "superior firm performance was achieved by organizations with executives playing all four roles at a high level using paradoxical skills" (p. 129). It is important to note, however, that not all organizations will have traits that can align into each quadrant.



The Supply Corps appears to have a heavier emphasis in Clan and Hierarchy characteristics. Adhocracy characteristics are quite minimal in the community as it is not very innovative.

Figure 4. Authors' Assessment of Supply Corps' Characteristics within the CVF.

1. Clan Quadrant

Clan culture makes up the upper left quadrant of the CVF model. The feelings of needing to belong, act in a cohesive unit, and be part of a team act as some of the core values and motivational factors (Denison & Spreitzer, 1991). Goodman, Zammuto, and Gifford (2001) found that "cultures that emphasize group values are likely to experience greater quality of work life" (p. 64). Outcomes of clan culture portray leaders as mentors, with an organization that is high on cohesion and an emphasis on morale (Yardley & Neal, 2007).

As previously discussed in Chapters I and II, the Supply Corps places a strong emphasis on clan culture through community-building exercises and officer development. Supply Corps officers are encouraged to network with more senior officers and gain mentors for career advice or guidance. We hypothesize that the Supply Corps will have the strongest traits in Clan.

2. Adhocracy Quadrant

Adhocracy culture makes up the upper right quadrant of the CVF. This quadrant's characteristics emphasize growth, innovation, and creation (Cameron, Quinn, DeGraff, & Thakor, 2014). Adhocracy culture outcomes emphasize leaders that are visionary, cutting edge, and risk takers (Yardley & Neal, 2007). The Supply Corps has recently taken greater steps in becoming more innovative. In a world dominated by technological advances and information sharing, the Supply Corps released a mobile application called *eSUPPO*. The goal of *eSUPPO* was to incorporate policy instructions, advertise future billet listings, community announcements, and career booklets in one convenient mobile application. Some of the predictors and outcomes for Adhocracy culture are advocating "creativity and communication skills to bring about change and acquire resources necessary for change management" (Belasen & Frank, 2008, p. 128). We hypothesize that the Supply Corps is weakest in the Adhocracy quadrant, as shown in Figure 4.

3. Hierarchy Quadrant

Hierarchy culture makes up the lower left quadrant of the CVF. This quadrant emphasizes control and enforceable formal rules (Goodman et al., 2001). Yardley and Neal (2007) argue that the military falls into the hierarchy culture as this is "the most effective command and control structure for a large organization" (p. 32). Hierarchy traits are very prevalent in the Supply Corps' organizational framework. Supply Corps officers are bound by Navy rules and regulations on what they can procure. This often includes multiple layers of approval from higher echelon commands prior to executing a purchase. These types of controls are put in place to ensure policies are followed and to ensure Supply Corps officers are good stewards of taxpayer's money. Additionally, the Chief of the Supply Corps directs mandatory annual ethics training to reiterate the importance of following the rules even when no one is looking. We hypothesize that the Supply Corps is very strong in the Hierarchy quadrant.

4. Market Quadrant

Market makes up the lower right quadrant of the CVF. This quadrant emphasizes outcomes, throughput, and results (Quinn & Rohrbaugh, 1983). Products for a Market

culture emphasize profitability, performance-driven results, and management styles that aim for competitive benefit (Yardley & Neal, 2007). For the Supply Corps, the need to deliver efficiently and accurately is paramount to mission success. In every diverse tour, there is tremendous pressure to provide goods and services to the warfighter in a timely manner. Demanding customers are the norm because superiors are evaluated on either their readiness to conduct combat operations or their performance while actually conducting combat operations. The expectation to deliver is palpable, and those who do deliver are rewarded with favorable performance evaluations and steady promotions. The Supply Corps measures this performance through metrics designed to gauge supply effectiveness to the warfighter. With the importance of readiness as an important trait, we hypothesize that the Supply Corps is very strong in the Market quadrant as well.

B. MENTORING

Mentoring is a very important trait found in organizational culture. Gibb (1994) describes a mentor as an “accomplished and experienced performer who takes a special, personal interest in helping to guide and develop a junior or more inexperienced person” (p. 32). A characteristic of mentoring is forming a relationship built on the pillars of career development and growth (Ragins & Kram, 2007). Mentors are usually more senior individuals who can use their acquired skillsets and experiences to pass knowledge onto a protégé. Mentoring can also be used as a gateway to enable personal and occupational development (Eby, Durley, Evans, & Ragins, 2006).

Kram (1983) describes two roles mentors provide to protégés: career and psychological functions. Career behaviors include, “coaching protégés, sponsoring their advancement, increasing their exposure and visibility, and offering them protection and challenging assignments” (Ragins & Kram, 2007, p. 5). These types of behaviors help to acclimate the protégé into the organization. Psychological behaviors include, “enhancing the protégé’s professional and personal growth, identity, self-worth, and self-efficacy,” and “offering acceptance and confirmation and providing counseling, friendship, and role-modeling” (Ragins & Kram, 2007, p. 5). A study by Allen, Eby, Poteet, Lentz, and

Lima (2004) found that psychological mentoring had a higher satisfaction rating than career mentoring.

Studies on mentoring provide multiple examples of outcomes that deliver benefits to both the protégé and the mentor. Wanberg, Kammeyer-Mueller, and Marchese (2006) suggest that high levels of mentoring result in positive outcomes for both the protégé and mentors. Eby et al. (2006) found protégés that benefited from mentoring had high job satisfaction, organizational commitment, and fewer turnovers. Protégés who share perceived similarities with their mentors tend to have positive results from being mentored (Eby, 2007). Organizations that institute mentoring programs that address protégés' psychological and career needs benefit greatly, resulting in more productive, loyal, and happy employees.

1. Formal and Informal Mentoring

An organization often uses two types of mentoring: formal and informal. Formal mentoring programs match individuals and force them to establish a relationship (Wanberg et al., 2006). This form of mentoring also is more structured and often involves a timeline and contractual goals for protégé development. Informal mentoring is more of a less-structured approach that does not stick to timelines or duration and has no formal guidelines on how mentoring will be accomplished (Wanberg et al., 2006).

There has been research on both the benefits and drawbacks of formal and informal mentoring. One of the benefits formal mentoring provides is it can be designed to meet certain criteria objectives while providing many of the same benefits that informal mentoring gives (Parise & Forret, 2008). Research on formal mentoring tends to study the drawbacks more than research on informal mentoring. Eby and Lockwood (2004) noted that mentor-protégé mismatches, scheduling difficulties, and geographic distances were some of the largest hindrances when conducting formal mentoring. Parise and Forret (2008) concluded that “mentors whose participation in the program was more of a voluntary nature were more likely to perceive it to be a rewarding experience,” while “having more input to the matching process was associated with lower perceptions of nepotism” (p. 236). In addition, formal mentoring relationships last about a year

compared to informal mentoring relationships which last approximately five years (Eby, 2007).

2. Emergence of E-Mentoring

Over the past 20 years, electronic media has enabled the emergence of *e-mentoring*. Ensher and Murphy (2007, p. 299) define this phenomenon as a form of mentoring that is conducted “primarily through email and other electronic means (e.g., instant messaging, chat rooms, social networking spaces, etc.).” E-mentoring contains many advantages over traditional face-to-face mentoring. This includes the elimination of constraints such as geographical distance and time zone constraints, and allows for the capability of informal or formal mentoring (Ensher & Murphy, 2007). Additionally, it is adaptable and can occur at any time and any place (Eby, 2007).

E-mentoring should be seen as a new form of communication that can easily be embraced by organizations considering the abundance of electronic media available. Organizations that implement e-mentoring benefit from its use by employee retention and loyalty (Ensher & Murphy, 2007). As society becomes more interconnected via social media outlets, e-mentoring allows for mentors and protégés to communicate more efficiently. It also strengthens organizational cultures that rely on Adhocracy traits, which include being creative and innovative through technological implementations. One positive outcome of e-mentoring is that it allows protégés “to overcome personality barriers such as low assertiveness, poor social skills, or simply shyness or fear to initiate contact” while rendering “these first encounters much less risky than a FtF (face-to-face) initiation” (Ensher & Murphy, 2007, p. 305). Although e-mentoring shows a lot of promise for the future of mentoring, research on the topic is primitive and needs to be further analyzed for its positive and negative outcomes (Eby, 2007).

As discussed in earlier chapters, the Supply Corps community benefits greatly from both informal and formal mentoring. Implementing e-mentoring capabilities will allow the community to reach out to a broader range of people while allowing the

community to become stronger in Adhocracy culture. Chapters IV and V will delve deeper into the interest of the Supply Corps community in implementing these e-mentoring capabilities.

IV. RESEARCH METHOD

In this chapter, we begin by discussing the population of the Supply Corps and the reasons for our sample selection. Following that, we explain our methodology for determining the statistical values we use for quantitative analysis. Then we discuss the way we utilize each question and answer schema to determine culture and potentially related effects of that culture.

Our vehicle for conducting this study was a 51-question survey that we created independently. There was no pretesting conducted for clarity; however, our questions were specific to the population and their professional experiences. These survey questions can be found in the Appendix.

According to Pheysey (1993), culture is the shared system of beliefs, values, and attitudes among a group of persons, as opposed to that of specific individuals. Our survey is an attempt to gather those beliefs, values, and attitudes that are most current or relevant to our primary question of how culture affects decision-making in the Supply Corps.

A. SAMPLE SELECTION AMONG POPULATION

The Supply Corps consists of several different communities. While we all share many similar attributes and beliefs, we do not all exist within the same environments, real or cultural. Active Duty and Reserve officers are often met with different challenges. Retired officers, while certainly relevant in the context of this study, do not share the same experiences as those on Active Duty. At one time they may have, but they do not now, face the same situations, with the exception of those in government service at specifically supply-related jobs. Full Time Support personnel have seen an uptick in operational service in the past decade and can relate closely to Active Duty experiences and challenges.

To draw a sample, we decided to utilize three criteria, at least two of which should be met to make the data relevant and useful to the study:

- Can the sample provide recent or relevant data regarding the feelings of officers subject to the culture, and resulting pressures, of the Supply Corps?
- Will the sample provide data free of external biases resulting in skewed answers?
- Does the sample provide data from a sufficiently experienced population with a breadth of experience from which to draw informed opinions?

To assess Supply Corps culture, sampling the Active Duty population is the most logical answer. It generally meets at least two criteria, if not all three. Collecting data from Active Duty allows us to assess the current culture of the Supply Corps. This demographic is also unlikely to have a significant bias from external sources, that is, civilian careers or career experience with which to compare service. Further, this sub-population should have both the breadth of experience and informed opinions.

Full Time Support officers often fill Active Duty billets. They can comment effectively on the culture of the Supply Corps due to their experiences in and out of operational tours. Also, we believe it is worth comparing the attitudes and beliefs of the Full Time Support community to that of Active Duty. Drastic differences between the sub-cultures could highlight positive or negative community characteristics worth discussing.

Retired officers were sampled to provide a basis upon which to compare the Supply Corps of yesterday with the Supply Corps of today. Each organization has its own kinds of momentum. Cultural momentum is a significant aspect of an organization and maintaining it implies a “social and psychological sense of purpose and belonging” (Bacharach, 2006, p. 44). Retired Supply Corps officers have both the intrinsic (camaraderie) and extrinsic (business connections) motivations to remain at least somewhat connected to the Active Duty community. This momentum is measurable through comparative analysis of responses from Retired officers and Active Duty.

The Retired officers’ responses provide a measure of relevancy that, when used only for comparison to Active Duty officers, shares insight into the direction the Supply Corps has moved. Furthermore, since mentoring is within the purview of our study and

retired officers often continue to mentor Active Duty ones, their opinions on the matter of culture and mentoring can be useful.

We declined to sample reservists. Their experience is very different from those who are activated for long periods. Reservists spend a few weeks a year interacting mostly with other reservists. Undoubtedly, reservists Navy-wide have their own culture to analyze; this is not within the scope of this study.

Lastly, we specifically asked that respondents not take the survey if they left service prior to retirement. There is no guarantee that these respondents could provide their input from recent experience. This population will inherently contain a proportion of individuals who attrite with or without their consent. Even the responses from voluntary separations could skew the data due to biases resulting from the experiences that prompted their separation.

B. DETERMINING SAMPLE SIZE AND ACCEPTABLE MARGIN OF ERROR

The population of the Supply Corps is readily available from the Office of Personnel in Millington, TN, and is briefed to officers multiple times per year. The latest data from the Office of Personnel indicates 2,286 Active Duty Supply Corps officers at the end of 2016. (Daniels, 2016) The Full Time Support community consists of 95 officers and the population of the retired community is unknown.

The standard deviation (σ) for all populations is unknown. Therefore, we use a t-distribution to determine the mean, standard error, and margin of error for each question, using a 95% confidence level. We used Microsoft Excel to compute these figures with the Data Analysis tool add-on.

C. QUESTION AND ANSWER FORMAT

Of our 51 survey questions, we used specific questions to analyze the current Supply Corps culture. These questions were sorted into four categories, representing each of the four quadrants of the Competing Values Framework (CVF).

Every question was crafted to discover specific attitudes, based on actual experiences of officers. Respondents were presented with somewhat direct questions such as, *How supportive do you feel the Supply Corps is of your career goals?* This question is designed to elicit a response that allows us to draw inferences about the “Clan” nature of the Supply Corps; a commitment toward group strength through individual achievement. Through responses to questions such as these, we made inferences about the relative power of each cultural aspect in the Supply Corps.

Most questions on the survey consist of the question with a potential for five answers varying from the most negative response—for example, Never, Not Effective, Not Comfortable, or No Value—to the most positive response which consists of the following verbiage: Always, Very Effective, Very Comfortable, Very Valuable, and so forth. According to Iarossi, more than eight answers hold a potential for a bias toward answers at the beginning or end of the options (Iarossi, 2006). Five represents a number from which data can be gathered, but still eliminate this potential bias. We also used adjectives that create more consistency in interpretation among respondents (Iarossi, 2006).

Each answer was given a numerical value: one (1) for the most negative and five (5) for the most positive. We used these values to determine an average response, with a corresponding margin of error. For example, taking the following question:

During your operational tours, how clear have you felt the laws, rules, regulations, or clarifying instructions were to ensure you could properly procure materials and services without accidentally breaking those rules?

The responses for this question range from 1 to 5, with 5 being the most favorable, or *Always Clear*. We can make a reasonable inference that the Supply Corps Active Duty community believes the rules and regulations are *Usually Clear* if the mean is close to a 4.0 with a reasonably small margin of error. Assigning numerical values is “of critical importance for the accuracy of data entry” (Iarossi, 2006, p. 188).

Additionally, our method included the use of the top two answers—a 4 or 5—as generally indicative of a strong attitude toward that answer. For the example above, we can show that a specific percentage of the Supply Corps believes the rules and regulations

are either *Usually Clear* or *Always Clear*. We infer that, if the majority of the answers for a sample lie within those top two, the population believes the rules and regulations are at least *Usually Clear*.

D. CULTURE QUESTIONS AND ASSESSMENT TECHNIQUE

1. Demographics

The first phase of questions, Questions one through five, gathers important data about the makeup of our respondent community such as rank, time in service, duty status, and so forth.

2. Clan Culture

For the Clan culture, we utilized Questions 27, 28, 29, and 30 (Appendix). These questions reveal the attitude officers have toward each other and the Supply Corps in terms of material support, guidance, career advancement and development.

3. Market Culture

Questions 23 through 26 were used to assess the extent that Market culture exists by asking how often Supply Corps officers have felt pressured to go outside boundaries to support the mission.

4. Hierarchy Culture

To assess the Hierarchy culture, we used Questions 47 through 51. These pointed questions were designed to reveal a tendency among officers to believe, or not believe, the rules and regulations for procurement are sufficiently clear or potentially over-burdensome.

5. Adhocracy Culture

Questions 31, 34, 35, 36, and 39 were analyzed for insight into how comfortable officers felt about bringing about change to the organization. There are other supporting questions related to these, such as Questions 37 and 38, which we discuss in Chapter V.

6. Mentoring

For mentoring, we used Questions 7 through 12, 14, and 15 to assess the perceived effectiveness of mentoring in its various forms and the frequency with which respondents utilize their mentors. Question 13 was also used as a means to assess both the mentoring and Clan culture.

7. Forms of Communication

This series of questions were crafted to determine what shape *LifeLine* would take when it is created. Questions 16 through 18 address this area to provide a general consensus regarding the desires of the Supply Corps for a technological solution to mentoring, guidance and support.

8. *LifeLine* and Technology Use

We asked a series of questions that assess the respondent's willingness and openness to using technology to address situations such as mentoring, seeking assistance for difficult decisions, and presenting innovative solutions. Those Questions are 20, 21, and 22. Questions 42 through 46 are also used to narrow the respondent's perception toward a method of delivery of this technology.

E. INFERENCE QUESTION CORRELATIONS

We used several correlations between questions to matrix demographics and experiences. From these combinations, we can determine the extent to which cultural aspects, and pressures, are most prevalent among specific ranks or time in service.

For example, the question combination, as follows:

(Q3) What is your rank? → (Q23,Q24,Q25) Have you ever felt pressured....?

This allows us to draw inferences about the effect that rank may have on the perception of susceptibility an officer may have toward Market pressures. We used these correlations in varying ways to answer our research questions. These are useful in expressing what segment of the population, whether by rank, time in service, or perceived

susceptibility to pressures, is most interested in finding another way to seek out assistance in the challenging environment that Supply Corps officers face.

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V. DATA ANALYSIS

In this chapter, we will provide and interpret the data we collected from our survey. The foundation of our research rests on our analysis of the Supply Corps culture. Through that we will attempt to find and show any potential links between the cultural aspects we find dominant and resultant behaviors, perceptions and attitudes.

A. INTRODUCTION

These behaviors and attitudes that define Supply Corps culture may present challenges. If so, it is useful to conceive a solution to these challenges, rather than simply stating it. To the extent that mentoring supports the Clan culture, our analysis includes this aspect as well. Delving into communication and technology use will offer insight into the mind of the junior officer today. From that, platforms that allow leaders to help shape culture can be deduced based on their potential effectiveness with the young officers.

For the purposes of this chapter, we rounded all means and margins of error to the hundredths position. Any percentages are rounded to the tenths.

1. Demographics

Our first task was to separate the data into Active Duty, Full Time Support (FTS), and Retired populations. As discussed in Chapter IV, this is necessary due to different attitudes and biases that may exist in each culture.

To get a pure picture of the culture we have inherited and perpetuate, Active Duty culture was the most important. We received 272 respondents, or 11.9%, from that population. The Retired sample size is 370 respondents. Unfortunately, we received a somewhat lackluster response from the FTS community, consisting of 13 respondents out of 95 officers. This resulted in high margins of error (MOE)—close to 1.0 out of 5.0—for many questions. For that reason, we decided to discard this data.

2. Active Duty

The full Active Duty sample consisted of 272 respondents. However, not all respondents answered every question; some questions allowed respondents not to answer. Therefore, not every question will have 272 as the sample size. The lowest record count, 94, for a question was Q49: “If yes, did you receive guidance....” Besides the obvious nature of the question leading to a low count—its dependency on the question prior to it—it still presented a low MOE of 0.08 out of 1.0 at the 95% confidence level.

The next lowest count is for Q10a, “As a mentor...” This question requires one be a mentor to answer, something that not every officer will claim to be, rightly or not. The MOE for this question was 0.15 out of 5.0 at 95% confidence. The remainder of the questions has well above 200 responses.

For the Active Duty population, the average rank was O-4 (5.02 on the answer scale), with a MOE of 0.15. The breakdown of ranks is shown in Figure 5. The average time in service for the Active Duty sample is 16.20 years with a MOE of 1.0, or range of 15.20 years to 17.20 years. Having a mean time in service of 16.20 years is significant. With that much time in service, we can infer that the responses we receive are based on enough experience to provide an accurate, and fair, assessment of the culture and the challenges faced by officers.

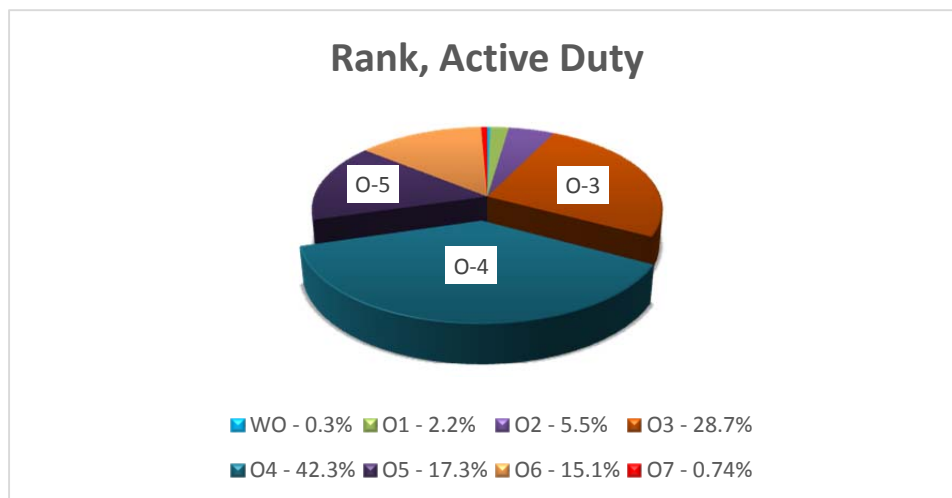


Figure 5. Active Duty Sample by Rank

3. Retired

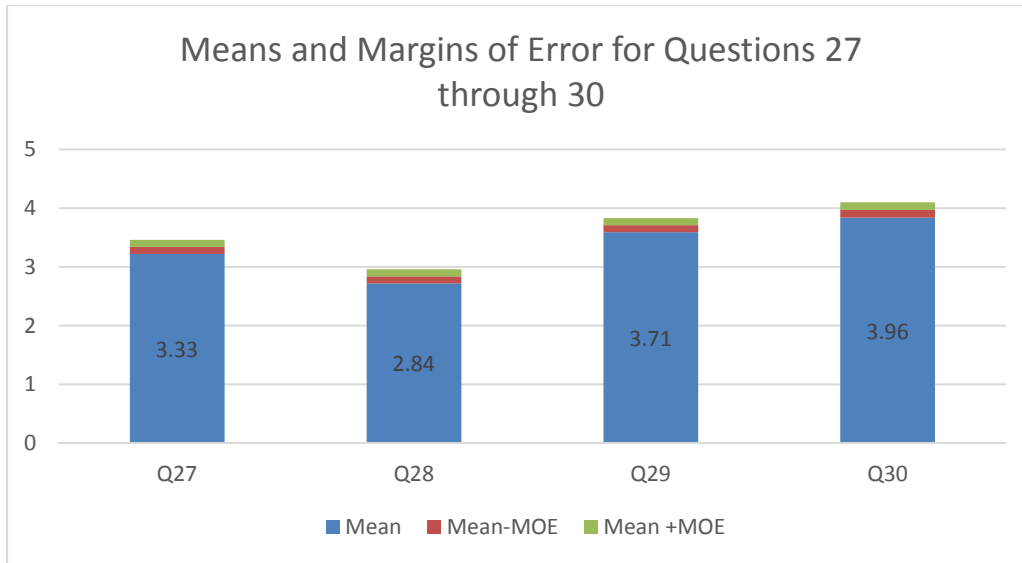
We received 370 responses from retirees. The average time in service for the retired population is 24.73 years with a MOE of 0.58, making the range 24.15 to 25.31 years. The average rank for all retired personnel taking the survey was O-5 (6.12) with MOE of 0.11.

B. SUPPLY CORPS CULTURE

1. Clan

We determined the Clan culture of the Supply Corps as being strong in comparison to the other quadrants. This determination is made by analyzing the responses to Questions 27 through 30.

The closest numerical answers for these four questions are 3.0, 3.0, 4.0 and 4.0 which represent *Sometimes* and *Generally Effective*, respectively. Therefore, we infer that officers sometimes rely on their peers and believe the Supply Corps is generally effective and supportive of individual career goals. Our findings are shown in Figure 6.



(Q27) How often did you rely on other waterfront Supply Officers for material support (supplies and services) or guidance on how to support your own mission within the scope of your job?

(Q28) How often did you rely on senior Supply Officers outside your chain of command for guidance on how to support your own mission within the scope of your job?

(Q29) How supportive do you feel the Supply Corps is of your career goals?

(Q30) Compared to other communities, do you feel the Supply Corps is effective at development of its officers, using tools such as mentoring, Road Shows, and publications such as the Flash from the Chief?

Figure 6. Means and Margins of Error for Questions 27 through 30

Furthermore, as discussed in Chapter IV, we considered the mean values of 4.0 and 5.0 as generally positive, or agreeable, in combination. From this, we see that the officers from the sample depended on their fellow officers at least *Often* and overall feel the Supply Corps is concerned with the professional well-being of each individual. Results are depicted in Figure 7.

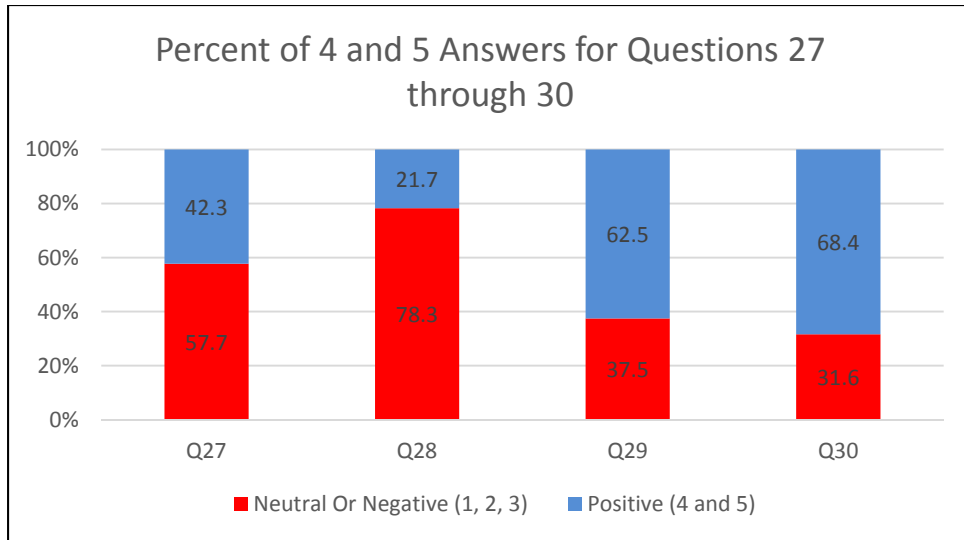
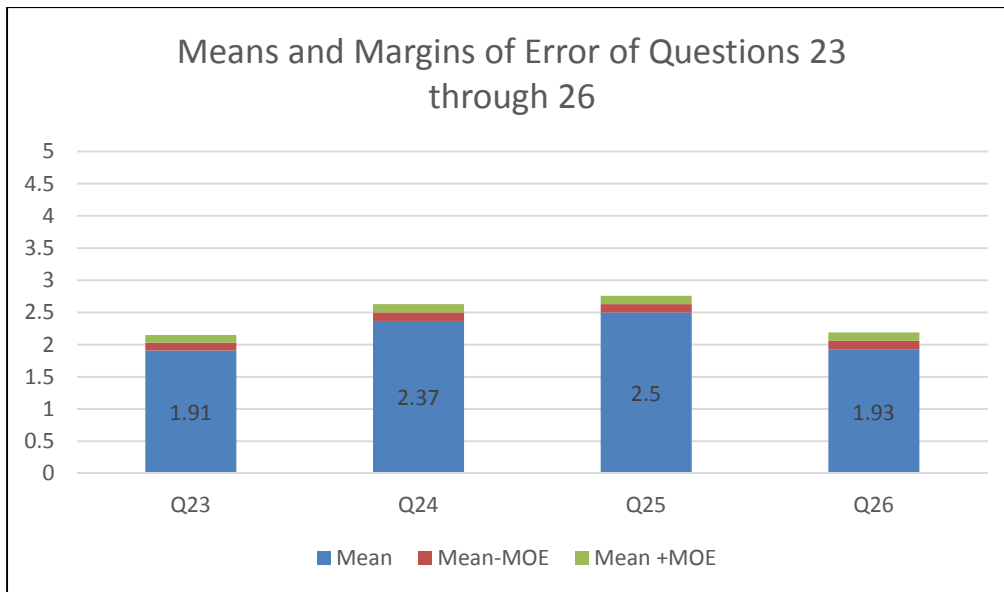


Figure 7. Percent of 4 and 5 Answers for Questions 27 through 30

Question 28 received the lowest positive portion of answers among the Clan questions. This could be due to apprehension surrounding approaching senior officers for assistance or reflective of the tendency for military members to use the chain of command correctly. Questions 29 and 30 showed about two-thirds believe the Supply Corps is supportive of their career goals and is better than other communities in that regard.

2. Market

Questions 23 through 26 were used to assess the extent of the Market culture in the Supply Corps culture. In this section, higher scores indicate negative associated outcomes. The results are depicted in Figure 8.



(Q23) During your career, have you ever felt pressured to purchase or acquisition material or services contrary to established regulations, rules, publications or law?

(Q24) During your career, have you ever felt pressured to purchase or acquisition material or services outside of normal requisitioning procedures due to an impending timeline (e.g., deployment or underway)?

(Q25) During your career, have you ever felt pressured to purchase or acquisition material or services outside of normal requisitioning procedures due to mission requirements (e.g., deployment or underway)?

(Q26) Have you ever felt as though you may face repercussions for not purchasing, procuring or otherwise acquiring materials and services, contrary to established guidelines and regulations?

Figure 8. Means and Margins of Error of Questions 23 through 26

What we found is that, on average, officers do not frequently feel pressured to procure against established rules and regulations. In comparison to Clan, Market is weak. Questions 24 and 25 fell halfway between *Not Frequently* (2.0) and *Occasionally* (3.0) with small margins of error.

Using the 4 and 5 responses, we see about one-sixth of officers *Frequently* feel pressured to procure outside normal requisitioning methods due to mission or timeline. Ten percent feel, at least *Frequently*, as though they may suffer consequences for not procuring materials or services, even if against rules and regulations. Results are depicted in Figure 9.

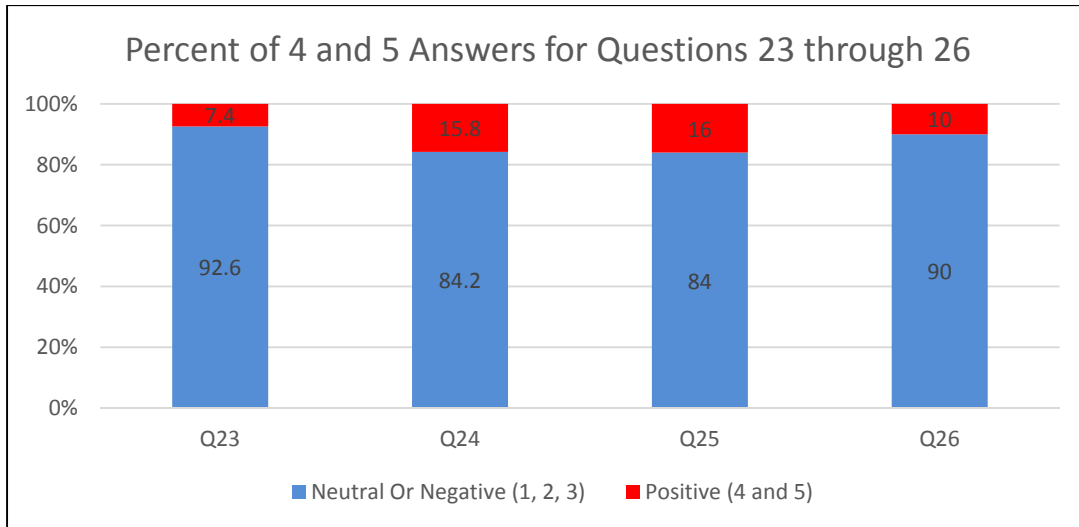
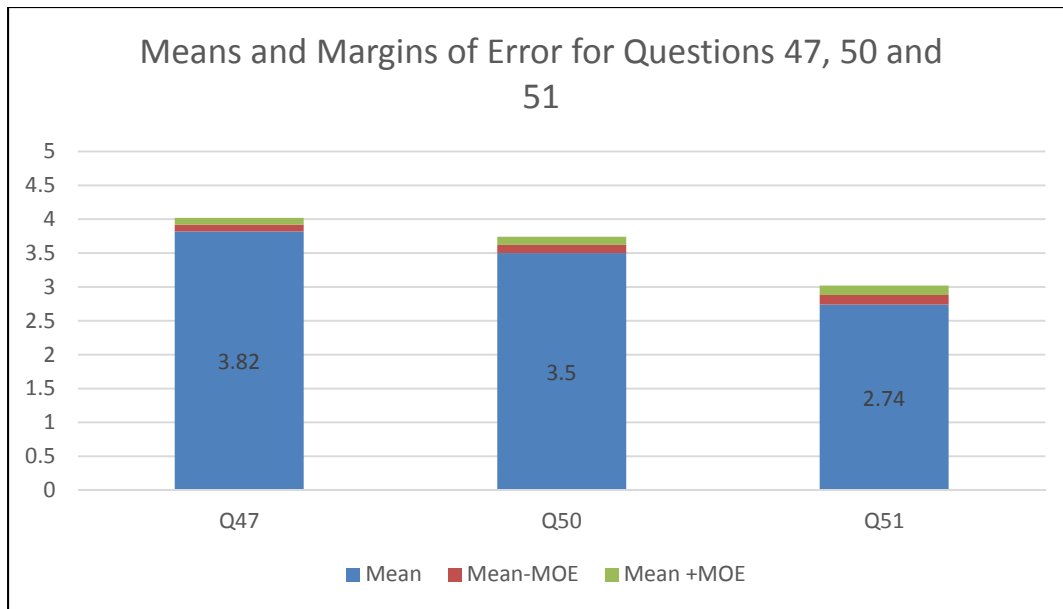


Figure 9. Percentage of 4 and 5 Answers for Questions 23-26

3. Hierarchy

Questions 47 through 51 were used to assess the extent of Hierarchy in Supply Corps culture. Questions 48 and 49 were “Yes/No” questions and will be discussed below. Results are shown in Figure 10 for Questions 47, 50, and 51.



(Q47) During your operational tours, how clear have you felt the laws, rules, regulations, or clarifying instructions were to ensure you could properly procure materials and services without accidentally breaking those rules?

(Q50) How likely are you to rely on that entity's advice in the future prior to procurement actions with respect to uncertain rules or regulations?

(Q51) During your operational tours, how often have rules and regulations made your job in procuring vital mission equipment, material, or services for your command(s) difficult or impossible?

Figure 10. Means and Margins of Error for Questions 47, 50, and 51

We assessed the Hierarchy culture to be above Market and nearly even with Clan. Structure is very important to the Supply Corps culture, and rules are important to all members. There is a clarity problem, however, for the Supply Corps.

For Question 47, we found a mean of 3.82, close to a 4.0 answer of *Usually Clear*. To make an analogy, on a grade scale of A to F, the Supply Corps is, at best, a C+ when it comes to understanding rules and regulations. This could be problematic given the average rank of the sample is O-4 and average time in service is 16.2 years. Supply Corps officers, after three-quarters of a career, do not feel rules and regulations are sufficiently clear.

Data from Question 48 shows that 32.4% of those sampled found out after procurement that they had done so against the rules and prescribed regulations. Of those who found out afterward that they had broken a rule, 14.93% sought help prior to doing so (Q49). Over one-quarter of the respondents felt that the rules made their jobs difficult or impossible (Q51). While this number is not a majority, it is not a small portion. These results are shown in Figure 11.

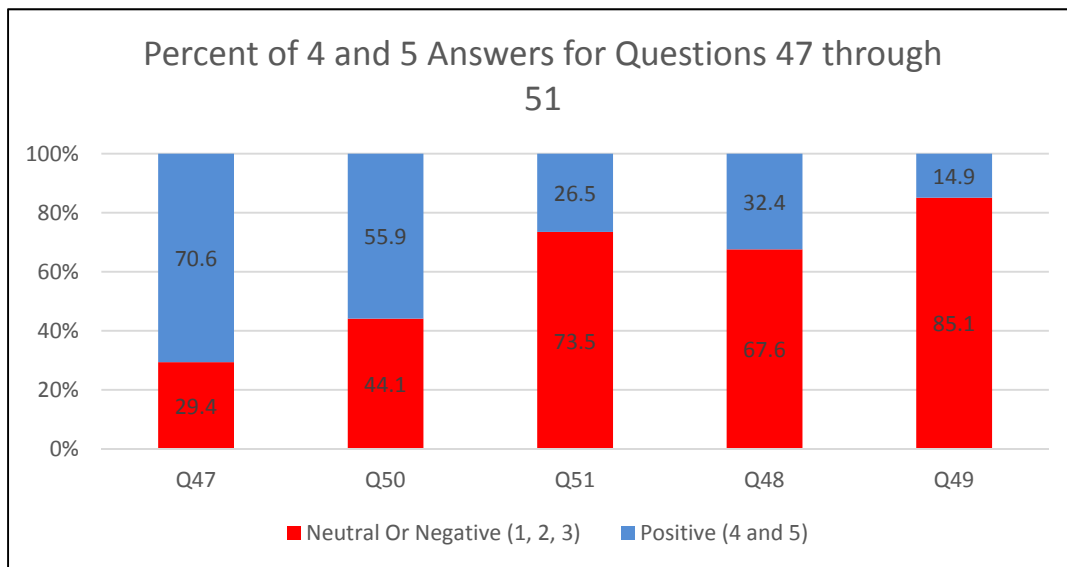
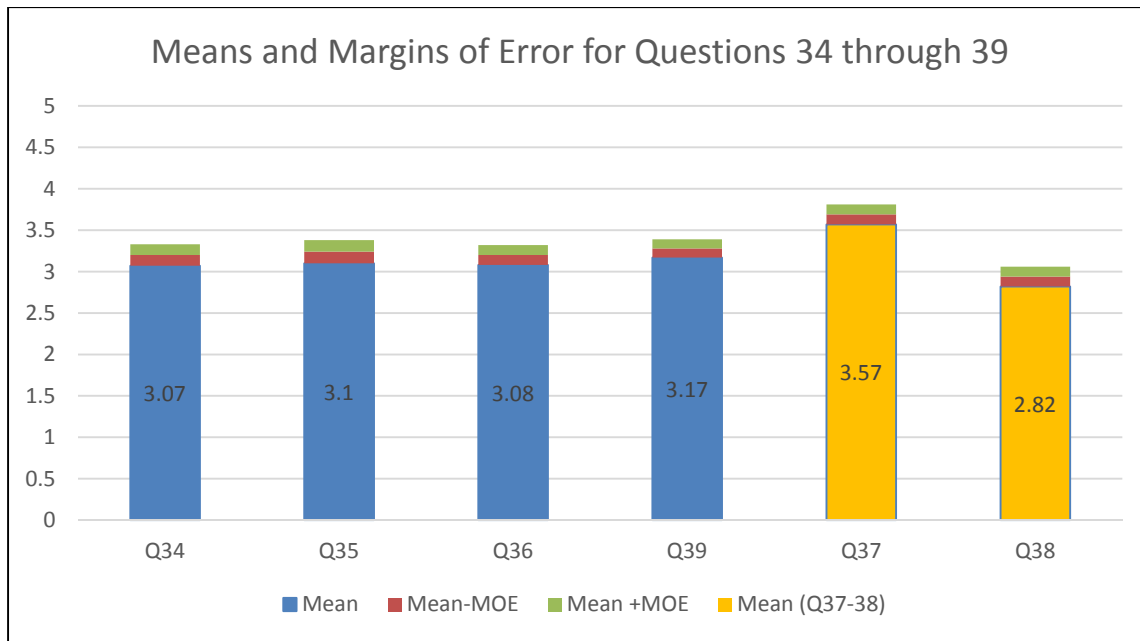


Figure 11. Percent of 4 and 5 Answers for Questions 47 through 51

4. Adhocracy

The data for Questions 34 through 39 are displayed in Figure 12. Questions 37 and 38 are amplifying info about the availability of support entities when officers had suggestions and ideas for improving processes.



(Q34) How likely were you to contact upper echelon commands (GROUP, TYCOM, etc.) to make suggestions about potential solutions to problems?

(Q35) How likely were you to contact assist teams to make suggestions about potential solutions to problems?

(Q36) During any of your tour(s) where you had fellow Supply Corps Officers in your command, how inclined were you to contact your higher echelon staff for support?

(Q39) How responsive were those entities to innovative ideas that you may have had?

(Q37) In any of the above instances, how readily available were the staffs to your inquiry?

(Q38) In any of the above situation, how often were you limited by geographical distance to the support entities?

Figure 12. Means and Margins of Error for Questions 34 through 39

The 4 and 5 answers for Questions 34 through 36 are shown in Figure 13.

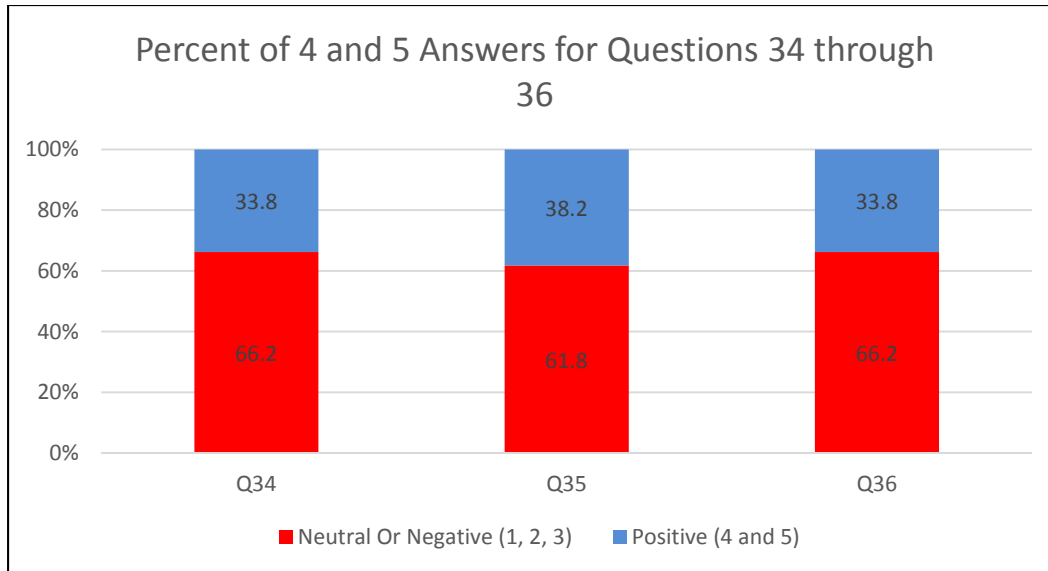


Figure 13. Percent of 4 and 5 Answers Questions 34 through 36

Our analysis of this quadrant indicates that the Adhocracy culture, while higher than Market, does not possess the strength of Clan or Hierarchy. The means gravitate towards a neutral 3.0, indicating that officers are on average *Somewhat Likely* to contact upper echelon commands or assist teams to make suggestions or propose solutions to problems. However, over 60% felt either neutral or less than neutral (3 or below) about suggesting ideas and solutions to existing problems to their support entities (Q35). Furthermore, Question 39 reveals that support staffs were less responsive than one would expect. The population's perception is that support staffs are only *Somewhat Responsive* to their innovative ideas on average. This is shown in Figure 14.

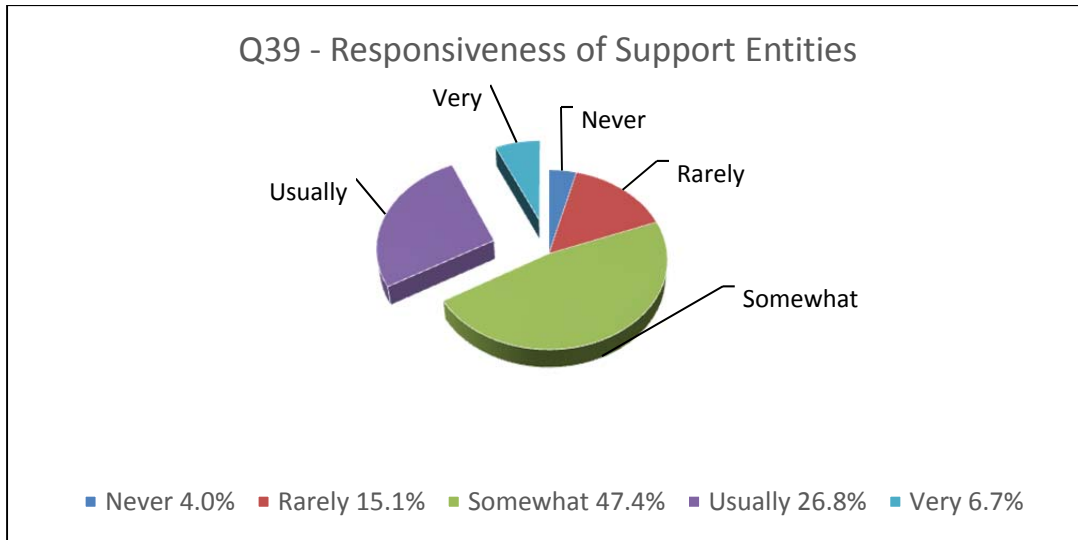


Figure 14. Responsiveness of Support Entities

Our amplifying questions, 37 and 38, attempt to further our understanding of this problem. When asked if support entities are readily available to inquiries, the average response indicates they are available.

With a mean of 2.82, geographical distance is at least an *Occasional* occurrence. With 23.5% of respondents feeling that distance *Frequently* limits direct contact with support entities, it is clear that officers are getting assistance even when geographical limits are in place.

5. Retired Perceptions of Culture

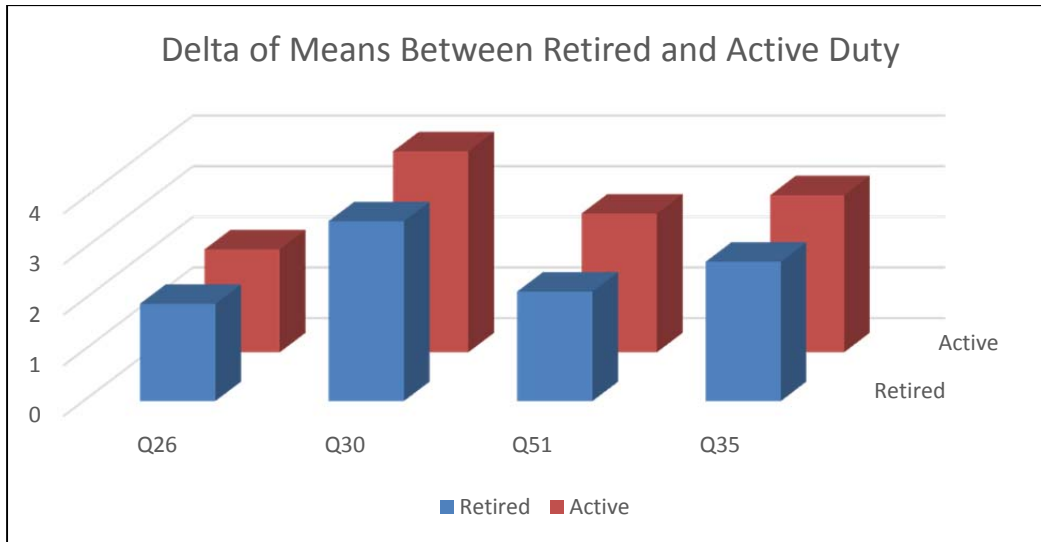
Using the questions above, we compared the perceptions of retired officers to those of active duty. Their experiences provide a window into changes that may have occurred within the Supply Corps culture. For each pertinent question from sections 1 through 4 above, we subtracted the means of Retired officer respondents from the means of the Active Duty respondents. There were a total of four questions assigned to Clan, Market and Adhocracy. There were five questions assigned to Hierarchy. This simple analysis provides a snapshot into the type of change in culture that has occurred, if any, and to what extent. This is shown in Table 1.

Table 1. Delta of Means between Retired and Active Duty

Culture	1 st	2 nd	3 rd	4 th	5 th
Clan	0.26	0.35	0.22	0.42	--
Market	0.04	0.11	0.11	0.14	--
Hierarchy	-0.18	0.04	-0.01	0.23	0.57
Adhocracy	0.25	0.35	0.25	0.10	--

Overall, there is a small shift toward the positive from Retired to Active Duty. The Clan quadrant contains the largest positive shift indicating Active Duty officers, on average, perceive more Clan behaviors and artifacts, such as mentoring or career development. Adhocracy also saw a positive shift, likely due to recent initiatives by the Supply Corps to spur innovation.

The data shown in Figure 15 represents positive shifts in Questions 26, 30, 51 and 35 for Market, Clan, Hierarchy, and Adhocracy, respectively. The highest of these changes is Question 51 with 0.57 positive shift for Active Duty. This particular question indicates that Active Duty personnel are significantly more likely to feel that rules and regulations make their job difficult or impossible. The value of the mean shifted from 2.17, close to *Occasionally*, to 2.74 which is closer to *Somewhat Often*.



(Q26) Have you ever felt as though you may face repercussions for not purchasing, procuring or otherwise acquiring materials and services, contrary to established guidelines and regulations?

(Q30) Compared to other communities, do you feel the Supply Corps is effective at development of its officers, using tools such as mentoring, Road Shows, and publications such as the Flash from the Chief?

(Q51) During your operational tours, how often have rules and regulations made your job in procuring vital mission equipment, material, or services for your command(s) difficult or impossible?

(Q35) How likely were you to contact assist teams to make suggestions about potential solutions to problems?

Figure 15. Change of Means from Retire to Active Duty for the Four Cultures

Question 30 had the next largest increase from Retired to Active Duty. The mean increased by 0.42. This means Active Duty officers feel significantly more favorable than Retired toward development of officers by the Supply Corps, compared to other communities. The third largest change is Question 35 with a positive shift of 0.35. Question 35 asked respondents how likely they are to make suggestions to assist teams about solutions to problems. Question 26 shows Active Duty are more likely to feel as though they may suffer consequences for not procuring outside the rules. This change is close to the MOE and may not be reliable.

6. Implications

We found the Clan culture is quite strong and has increased in strength from Retired to Active Duty personnel. Cohesion and morale are generally in good measure since individuals believe the Supply Corps is interested in their success, and they rely on each other for help on the waterfront. Market pressures, while not high, are still of significant strength. Over one quarter of the officers sampled felt that, at least Occasionally, they were pressured to procure outside of regulations when mission or timeline warranted. Furthermore, 10% felt they may face repercussions for not doing so. We determine Market to be low to medium strength. This is compounded by issues with hierarchal pressures. Regulations are numerous and on average, officers feel they have, at best, a C+ understanding of the rules. Over one-quarter of officers felt regulations made their jobs difficult or impossible. Roughly one-third found out after a procurement action that they did so against the rules and regulations. Due to these factors, we conclude Hierarchy culture to be strong. Innovation, while improving, is not significantly present enough to offset the strong Hierarchal-Market pressure. Most felt comfortable approaching support organizations for help with existing regulations, but almost half reported they were either *Not Likely* or would *Never* approach them to suggest solutions to existing problems (Q34). We believe the Adhocracy culture to be medium.

Using the CVF, we represent our assessment of the Supply Corps culture in Figure 16.

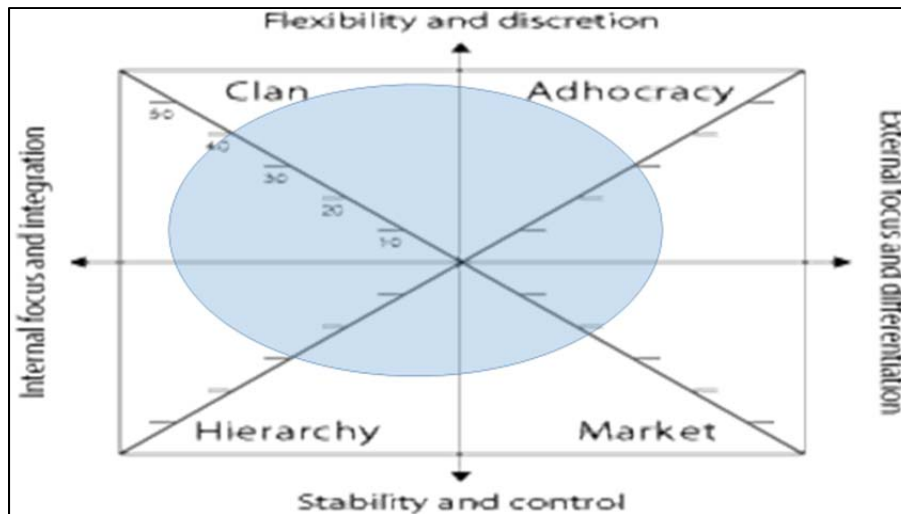


Figure 16. Assessment of Relative Cultural Strengths on the CVF Model.
Source: Adapted from OCAI (n.d.).

Typically, the Clan culture within an organization, using camaraderie and cohesive artifacts, relieves pressure from the Market culture to perform. It allows members to feel supported in their goals without believing that performance is the only way to succeed. It seems the Supply Corps Clan culture does not relieve this pressure. Members feel they will face repercussions, regardless of the numerous tools the Supply Corps uses to support members' goals. Were the Hierarchal pressures not so high—in the form of copious, difficult to navigate regulations—this pressure might be relieved somewhat through the innovative nature of our personnel.

However, an administrative roadblock further binds us to Market pressure. Supply Corps officer FITREPs are not always approved by other Supply Corps officers where Clan support can relieve the Market and Hierarchal pressures. The artifact “Ready for Sea” is directly linked to our accountability to the Commanding Officer who, typically, is not a Supply Corps Officer. Our performance ratings tend to be linked to our ability and willingness to support the mission. In essence, we have a leader who demands that we accomplish tasks made difficult, or impossible, by regulations. In turn, this leader has considerable latitude in grading our performance based on his/her objectives which may be counter to the laws we are sworn to follow during the procurement process.

Additionally, this leader rarely has the ability to absolve Supply Corps officers of the consequences of breaking those laws.

C. UTILIZATION, COMMUNICATION AND MENTORING

1. Utilization

Not surprisingly, almost every Active Duty officer owns a smartphone. Our data shows that the mean for Question 5 is 0.99, where a “Yes” is 1 and “No” is 0. The retired population is similar, albeit slightly lower, at 0.93.

Similarly, both samples use their smartphone or tablet devices, and apps, *Very Often* (Question 6, 4.44 and 3.98). This is important to our research because the hypothesis we formed depends on the use of applications such as *eSUPPO*.

2. Communication

Forms of communication among Supply Corps officers and support entities fall predictably in the realm of electronics. Face-to-face communication is still prevalent, but not to the same degree as email and phone. In Figure 17 are shown the 4 and 5 answer percentages for each method.

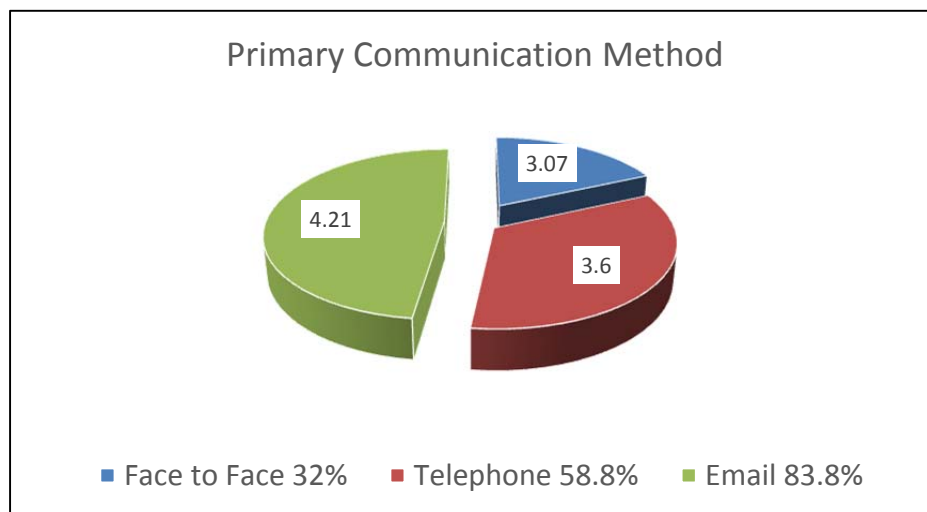
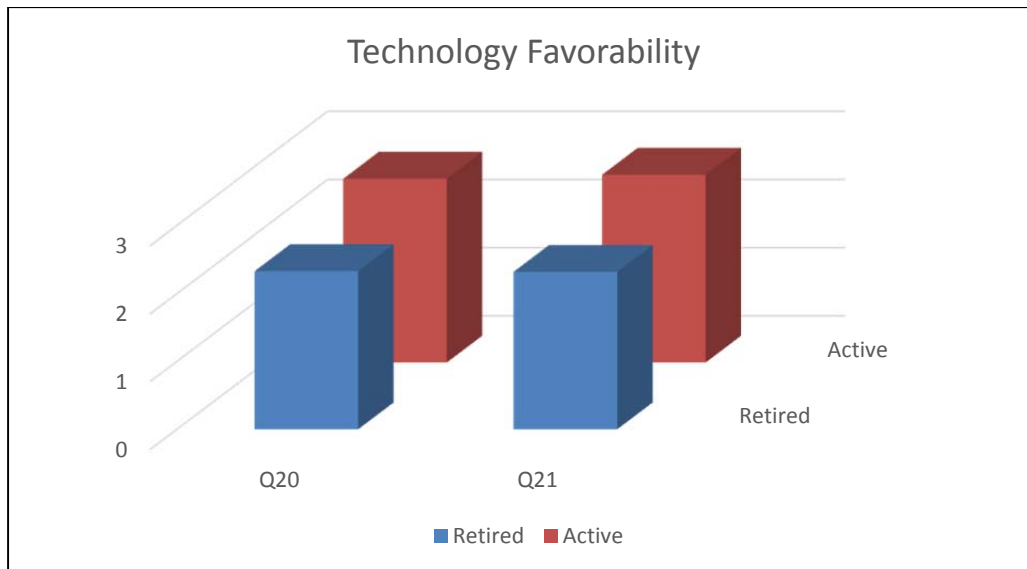


Figure 17. Primary Communication Method with Mean Scores Embedded

Email is the primary method of communication, though the high percentage of officers who use all three methods at least *Occasionally* indicates that no one method is discarded as a means of seeking support. As part of our research question, we proposed the following situations in Questions 20 and 21: how likely are officers to use a smartphone or tablet application to approach these same entities for assistance and to offer suggestions, without revealing their identity? For Question 20, we see the average is in the proximity of *Somewhat Likely* (3.0). Furthermore, almost half of officers are at least *Somewhat Likely* to use a mobile application to pose questions anonymously. Similar results exist for addressing an issue to support entities (Q21). We suspect these values would have been higher had our sample contained more junior officers in the ranks of O-1 and O-2. Those ranks are more likely to contain people from the Millennial Generation—those born between 1982 and 2000 (Howe & Strauss, 2000). Millennials are more likely to use their personal technology at work and for work (Ericsson, 2013).

Given the change in demographics for the entire Navy, it is likely the Millennials will be a majority in the next five to ten years. Employing innovative tools such as mobile applications that they are likely to use is vital if the Supply Corps wants to maintain its competitive advantage. As the data has shown, even those from Generation X, born between the mid-1960s and 1981, are *Somewhat Likely* to use their apps for work-related activities.

The retired population sampled showed reluctance to use technology in this way, with 61.6% and 62.7%, respectively, reporting they would *Never* or were *Not Likely* to use technology to pose questions or bring up issues with support entities. When using technology such as mobile applications, the delta from retired population to Active Duty is significant, as shown in Figure 18. This trend can only be expected to accelerate as Generation Z, the Internet generation, begins to fill our ranks.



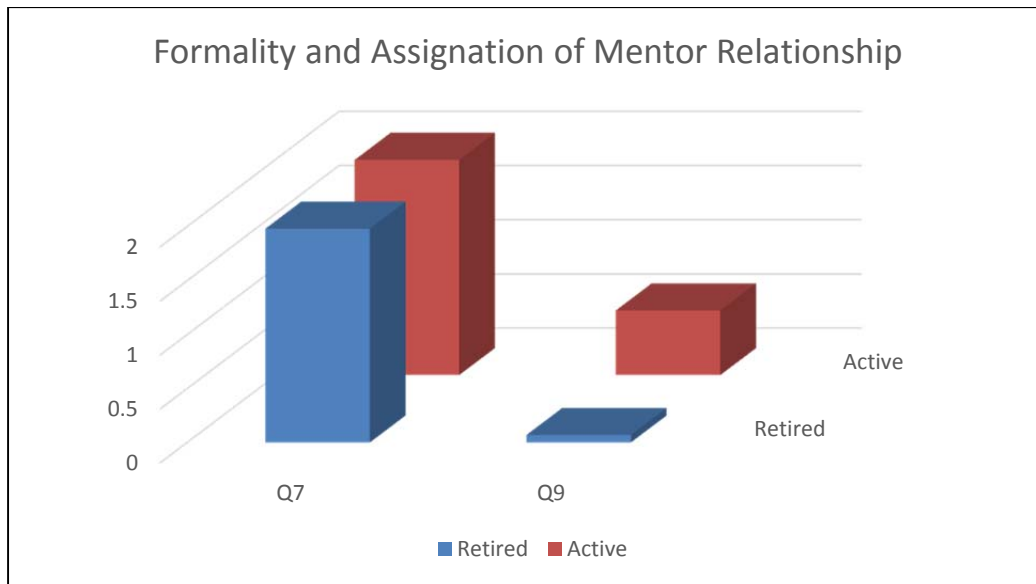
(Q20) How likely are you to use an application (App) on your Smart Phone or Tablet Device that allows you to pose a question, anonymously, to higher echelon commands and support commands?

(Q21) How likely are you to use an application (App) on your Smart Phone or Tablet Device that allows you to address an issue, anonymously, to higher echelon commands and support commands, without disclosing your identity?

Figure 18. Technology Favorability Shift Between Active Duty and Retired.

3. Mentoring

As we suspected, most officers use an informal mentoring approach more often than not (Q7). The mean is 1.99 where a 2.0 is Informal and 1.0 is Formal. The Retired population overwhelmingly was not assigned a mentor; the mean is 0.07, where 0 is “No.” But the Active Duty community mean for mentor assignation is 0.60. This shows a significant increase in the Supply Corps’ commitment to mentoring. It has likely contributed to the stronger Clan culture the Active Duty community sees versus the Retired. This is shown in Figure 19.



(Q7) Which program do you use more often (Formal or Informal) in your role as a mentee or mentor?

(Q9) Were you assigned a mentor at any time?

Figure 19. Mean Comparison for Questions 7 and 9

Protégés contacted their mentors slightly more often than the reverse. Furthermore, our analysis found that 92.2% of officers contact their mentors at least Monthly. Eighty-point-one percent (80.1%) of mentors contacted their protégés at least Monthly. Our analysis also shows that 59.8% of officers are at least Familiar with their mentors (23.6% report being *Very Familiar*). Supply Corps officers are not using a formal program, yet are finding mentors with whom they become familiar and *Usually* (Question 12, mean 3.93) receive advice freely and clearly. The desire to mentor, and be mentored, is clearly high and informally approached by almost all officers. The Supply Corps has taken steps, such as assigning mentors, to increase this mentoring activity. But members seem to gravitate toward the informal setting. Facilitation of mentoring through providing a platform in which to find mentors/protégés, vice assigning them arbitrarily, would likely be perceived as valuable.

There is some desire in the Supply Corps for a formal program. Active Duty officers consider a formal program *Moderately Valuable* (2.92) and 27.2% feel it is

at least *Very Valuable*. Respondents are also, on average, *Very Interested* in being a mentor (Q13, 3.99).

If officers want a formal program, but are using an informal program, the efforts at creating that capability so far are not sufficient. At the time of this writing, the Supply Corps broadcasted a new initiative called *Navigating the Mentor-Protégé Relationship*. It is a primarily informational document meant to develop an understanding of the tools needed to have a good mentor-protégé relationship and with goal achievement (NAVPERSCOM, 2017).

This initiative is designed to support mentoring relationships that has been established. It does not, however, address the formation of mentor and protégé bonds and relationships. Finding a mentor or protégé can be a challenge especially for this new generation. As discussed in Chapter III, e-mentoring is one acceptable way to address the changing environment of the Supply Corps.

In the previous section, we discussed forms of communication and the generational trend toward technology use for work-related relationships. Question 22, which addresses likelihood for use of applications in finding mentors, shows a significant increase in value from the Retired population to the Active Duty population. The Retired sample mean for Question 22 is 2.69 while the Active Duty mean is 3.23. Further, the percentage of individuals *Likely*, or *Very Likely*, to use such an application increased from 28.4% to 41.2% when comparing Retired to Active Duty.

We believe this trend will continue for the foreseeable future. By 2020, 46% of all workers will be Millennials (Kratz, 2013). Those born in 1982 will be, or approaching, age 35 years at the time of this writing. According to the DOD 2014 Demographics Report, “56.6% of Active Duty Officers are 35 or younger and the average age is 34.8” (DOD, 2014, p. iv). The vast majority of our military officer ranks at the paygrade of O-1 to O-4 are filled with this age group. This growing, professional generation seeks out mentorship in an informal setting. Indeed, it “may be better suited to the on-demand, real time needs of the Millennial professional” (Thorpe, 2013, p. 6).

D. CORRELATIVE INFERENCES

In this section, we will use combinations of questions to draw inferences regarding the various predictors and outcomes associated with culture and behaviors. Our goal here is to use the data and analysis thus far and provide further insight into the reasons why Supply Corps officers may perceive or behave in certain ways. We also hope to link the four cultures and mentoring. If there is a meaningful relationship between mentoring and Market culture pressures, for example, a potential solution may exist that satisfies the pressures through mentoring. Our method for this part involves combining questions, such as:

Q3 (Time in Service) \rightarrow Q41 (Value in mentor database).

This can provide us with insight into the previously mentioned demographic shift toward technology use at work.

1. Demographics and Market/Hierarchy Pressure

Our first task was to measure the effect of the two major demographic variables against two pressures that can affect performance. This relationship can provide some information regarding the ability of individuals to deal with these pressures using experience and authority. This is shown in Table 2.

Table 2. Rank, Time in Service and Market/Hierarchy Pressures

Correlation	Time in Service	Rank
Q26	-0.11	-0.11
Q23	-0.06	-0.04
Q47	0.19	0.19
Q51	-0.23	-0.26

Question 23, which deals with pressures to perform outside rules and regulations, showed a weak negative correlation with both rank and time in service. This indicates there is a small decrease in pressure as both rank and time in service increase, independently.

What we expected to see is that as rank, or time in service, increased, the pressure individuals felt from the Market culture would decrease, reinforced by their experience and authority as well as support from the Clan culture. Unfortunately, the data shows that while there is a decrease in this pressure, it is small. Officers of all ranks and time in service suffer from the same pressures to perform outside the rules. Based on Question 26, neither rank nor time in service change the perception that one may face repercussions for not exercising procurement outside rules and regulations.

Furthermore, the low correlation between the demographic questions and Questions 47 and 51 shows that neither rank nor time in service makes regulations much easier, or harder, to understand. Neither do they grant much relief from those same regulations in performance of the job. Typically, the Adhocracy culture of an organization helps to relieve those regulatory pressures and the Clan culture would help decrease the pressure to perform.

2. Hierarchy/Adhocracy Dynamic

We found that there is a very low correlation between the attitudes that officers have toward the rules and regulations and their tendencies to use potentially innovative avenues to solve problems. The data analysis by question is shown in Table 3.

Table 3. Hierarchy vs. Adhocracy Correlation

Correlation	Q47	Q51
Q34	0.08	-0.05
Q35	0.08	-0.04
Q36	0.00	-0.11
Q40	0.15	-0.19

Based on Question 47, regardless of how clear or unclear officers feel regulations are, there is no correlation to their likelihood to contact support entities. There is a very low correlation (0.15) between perceived clarity of the regulations and comfort with approaching these entities.

Question 51 also saw low correlative tendencies between the Hierarchy and Adhocracy cultures. There is a low negative correlation (-0.11) between the perception of difficulty, resulting from regulations, and level of comfort approaching support entities. When other Supply Corps officers are in a command with a respondent, they are slightly less likely (-0.19) to contact support entities such as upper echelon commands (e.g., a TYCOM).

3. Market/Clan Dynamic

We once again found a low correlation between the Clan and Market perceptions of Supply Corps officers. We used Questions 27 and 28 and compared them to Questions 23 through 26 to determine if Supply Corps officers rely on the Clan culture to relieve the pressures of the Market culture; the result is shown in Table 4.

Table 4. Market vs. Clan Correlation

Correlation	Q23	Q24	Q25	Q26
Q27	0.09	0.11	0.14	0.11
Q28	0.0	0.01	0.05	0.11

The strongest of these correlations, while weak, indicates there is a slight tendency for officers to rely more on peers when they also feel pressured to procure outside normal requisitioning methods due to mission requirements. We expected to see much higher correlation, based on our own experiences, though other factors may be involved.

4. Mentoring and Market Pressures

When comparing the attitudes of officers toward mentoring to Market culture pressure, there is a slightly larger and more consistent correlation. It appears that the more familiar respondents were with their mentor and the clearer those mentors' advice, the less pressure those officers felt to perform outside the rules and regulations. They also perceived slightly less possibility of repercussion for not doing so. The data is provided in Table 5.

Table 5. Mentoring vs. Market Correlation

Correlation	Q23	Q24	Q25	Q26
Q11	-0.13	-0.12	-0.08	-0.18
Q12	-0.12	-0.18	-0.15	-0.19

Furthermore, we found these questions to contain consistently negative correlations for the entire set, as seen above. This is significant because it indicates the relationship between them, while not strong, has some precision. A potential cause of this is that the mentor-protégé bond, as it grows, builds confidence in the protégé that doing the right thing will not negatively affect their career. In this way, mentoring serves the Clan culture.

Questions 11 and 12 retain a small positive correlation (0.13) to Question 47—the perception of rules and regulations being clear. This may indicate that during the course of mentoring, some information and wisdom is passed along regarding job-specific tasks that affect the protégé.

Mentoring plays a role both in sustaining the Clan culture of the Supply Corps and in reducing negative Market pressure. In the CVF model, when one culture is too strong it tends to have detrimental effects on the organization. The Market culture's pressures to perform and produce, while not as strong as the Clan culture, shows some specifically negative effects. But it is mitigated by the artifacts in the Clan culture, particularly mentoring.

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VI. CONCEPTUALIZATION OF THE LIFELINE APPLICATION

The concept for the *LifeLine* application came to fruition through an in-depth analysis of the Supply Corps culture. It was apparent that the current climate within the community had suffered several setbacks from the Glenn Defense Marine-Asia scandal, and there was a definitive need to improve upon the values of the Supply Corps. To facilitate improvements, this application was conceptualized to provide another layer of assistance and increase the overall support network of the Supply Corps officer.

The application has two functionalities, the first being the *AdviceLine* that operates as a portal for Supply Corps officers to submit a question/concern that requires further assistance in solving. Officers/users submit via the application by completing a simple form transmitted within the applications framework. This portion of the application also provides the user the option to submit the request anonymously by assigning a series of numbers which connects the request to a user's account profile. Additionally, facilitators of the application will respond to the user.

The second functionality of the application is called *MentorLine*. This portion of the application operates as a database for users to seek out mentors who share common professional interests. These interests are identified by the users by selecting various predetermined keywords contained within a query page in the application. Once a query is submitted by the user, an internal database searches for the exact keyword, and returns to the user another individual's profile that contains those interests.

A. SCOPE

The purpose of *LifeLine* is to provide Supply Corps officers with a mobile application that can be utilized to help connect them with other Supply Corps officers, where knowledge and experience can provide insight and assistance with the decision-making process.

The main premise of this tool is to enable officers to obtain support regarding any of the following:

- Ethical issues
- Address issues with policy (instructions or regulations)
- Provide awareness of a streamlined process (innovation)
- Assistance in solving a problem
- Connecting with potential mentors in the Supply Corps network

In a day when the “zero-defect” mentality is prevalent, junior officers need a tool that they can utilize without their questions being over-analyzed as a performance flaw and without bringing any undue oversight to an already highly stressful operational tempo.

B. FACILITATORS

The overall responsibility to moderate and facilitate *LifeLine* would be with the Naval Supply Systems Command (NAVSUP) in Mechanicsburg, PA. The reason for this is two-fold: authority and concentration of experience. The Commander of NAVSUP is dual-hatted as the Chief of Supply Corps and his buy-in is integral to the overall success of this program. The second is that the Naval Support Activity Mechanicsburg, where NAVSUP headquarters is located, is home to several major commands that are Supply Corps-centric and has a significant concentration of Supply Corps officers. This will prove beneficial in the response process of the tool.

The *LifeLine Cell*, a cadre of logisticians, would serve as the moderators of the application. The cell would also serve as the validator of new accounts to ensure only members of the Supply Corps community have access. This can be achieved by cross-referencing account requests with the annual *Supply Corps Directory* along with the presence of a user’s “navy.mil” email address.

All *AdviceLine* submissions received at the *LifeLine Cell* will be fielded to a team of Supply Corps officers and civilian logisticians who have significant experience across all lines of operation. In the event the team cannot provide adequate support, they maintain the capability to reach out to any command in the NAVSUP construct that has additional subject matter experts in these fields. The bottom line is that every effort

should be made to assist the Supply officer with their questions or dilemmas, and help them reach a positive outcome while adhering to the highest of ethical principles.

C. USERS

There are three classifications of users for this application: *AdviceLine Users*, *MentorLine Protégés*, and *MentorLine Mentors*.

AdviceLine Users can access the application to address a current issue that they are seeking to remedy. These are general to the performance of their duties, address ethical dilemmas, or propose innovative concepts. It requires a creation of a *LifeLine* profile and the completion of the *Active Submission* form which offers several topics to choose from along with a comments section to provide a detailed explanation for review.

MentorLine Protégés can access the application to find a mentor who will assist them with career guidance. Some examples of searchable fields are specific platform (Surface, Aviation, Submarines, Expeditionary, etc.) experience, geographical locale, records review, specific programs (Internships, Training with Industry, Graduate Education) and career progression. The *MentorLine* section requires the creation of a *LifeLine* profile, a *Protégé* profile, and a searchable match on the Protégé query page. The query page enables the user to create an active account of the topics they would like to discuss with a *MentorLine Mentor*.

MentorLine Mentors can access the application to find a protégé that is seeking guidance (as mentioned in the previous section). *MentorLine* requires the creation of a *LifeLine* profile, a *Mentor* profile, and a searchable match on the *Mentor* query page. The query page enables the user to create an active account based on the topics for which they have expertise.

D. BUSINESS REQUIREMENTS

This section is intended to outline the logic behind this application and serve as a foundation for any future projects/theses leading to the development of the *LifeLine* application. The following subsections will meet several community objectives and outline a solution to address a current need within the ranks of the Supply Corps.

1. Purpose

The purpose of *LifeLine* is to create an environment that allows officers to access the entire Supply Corps network to address problems they face in the function of their duties. It will also serve as a mentorship tool that enables one-touch access to Supply Corps professionals willing to invest in junior officer's careers.

2. Current Issues

Currently, there is no resource available to Supply Corps officers to pose a question to multiple sources in a contained environment that can be received and responded to in a timely manner. This would alleviate the challenges associated with constantly changing support personnel and creates a single-point of access to connect a user with subject matter experts. It would also relieve the constraints associated with distance and time-zones. Furthermore, it would allow a Supply Corps officer to pose a question to multiple sources anonymously without facing any undue repercussions or name recognition for seeking assistance. Additionally, there are no means available to seek career guidance and cultivate a community-wide mentorship framework.

3. Vision

AdviceLine was designed to leverage the Supply Corps network by providing access to its framework via an application that connects users to a greater body of subject matter experts within the NAVSUP enterprise. It also encourages innovation and ways to improve the overall community by encouraging recommendations or streamlining processes.

MentorLine was created to cultivate a more informed Supply Corps officer, via an application that bridges the gap between senior and junior officers by providing ease of access to unlimited information and experiences while encouraging professional relationships toward a common goal.

E. PRODUCT AND TECHNICAL REQUIREMENTS

There is currently an application in use (*eSUPPO*) that is managed by the Naval Supply Systems Command's Office of Personnel (NAVSUP OP) with technical support provided by the Naval Supply Systems Command's Business Systems Center (NAVSUP BSC). The current framework exists, and *LifeLine* could potentially become a subset of *eSUPPO*. Based on this assumption, all technical requirements associated with this application could potentially be replicated utilizing the pre-existing technical requirements contained in the *eSUPPO* application as a baseline. There are currently no plans to begin development of *LifeLine*, but interest has been expressed in this project by the team at NAVSUP OP.

F. WIREFRAMING (PROCESS FLOW OF THE APPLICATION)

The general process flow of the application, as information is submitted through the two functionalities (*AdviceLine* and *MentorLine*) of the application, is shown in Figure 20.

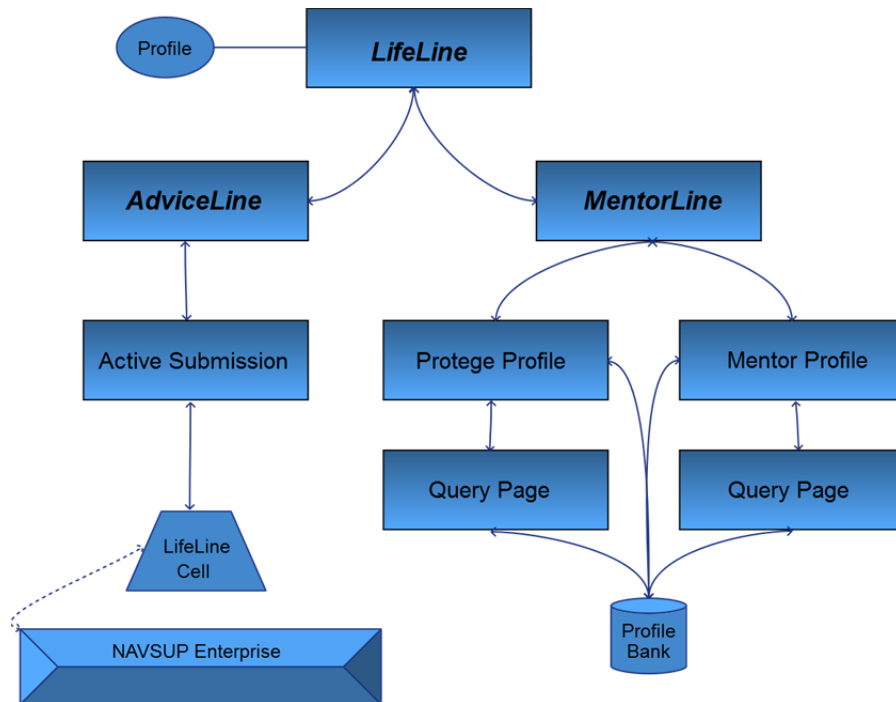


Figure 20. The General Process Flow of the Tool.

G. DESIGN

The infrastructure of the mobile application would be accessed via a tablet or smart phone.

1. Buttons and Icons

The following conceptual button and icons will be contained within the *LifeLine* application. A brief description is provided to understand the reasoning behind their creation.

a. LifeLine Application Button

The framework resides behind the *LifeLine* application button, shown in Figure 21. The concept design of the button was achieved by the following descriptors:

- Blue background with gold lettering—fostering the Navy’s blue and gold colors
- Two upper-case Ls, one inverted—representing the *LifeLine* name
- Centered Supply Corps oakleaf—for the community
- The two letters form a broken box—representing a difficult situation imposed on the officer and the gaps between the letters facilitating an avenue to solve the problem/task at hand



Oakleaf image source is Navy Supply Corps Foundation, Logo Repository (n.d.).

Figure 21. *LifeLine* Application Button

b. AdviceLine Icon

The second tier of the application, following the login/homepage, has two icons. The *AdviceLine* icon, shown in Figure 22, was created using the following characteristics:

- Blue background with gold light bulb; fostering the Navy's blue and gold colors.
- An illuminated light bulb for the idea that is being addressed.



Figure 22. AdviceLine Icon.

c. *MentorLine Icon*

The second icon represents the *MentorLine* function, found in Figure 23. This is also located on the page following the login/homepage. This button was developed using these features:

- Gold background with blue figures—fostering the Navy's blue and gold colors.
- The gray figure, representing the Mentor, is offset from the Blue figures implying seniority. Additionally, the gray is portraying a shadow as the Mentor is to be identified by the use of the application.



Figure 23. MentorLine Icon.

d. *MentorLine Protégé Icon*

The *MentorLine Protégé* icon, found in Figure 24, portrays only the figures that represent the protégés and therefore serves as their portion of the application.



Figure 24. MentorLine Protégé Icon.

e. MentorLine Mentor Icon

The *MentorLine Mentor* icon, found in Figure 25, portrays only the figure that represents the mentors and therefore serves as their portion of the application.



Figure 25. *MentorLine* Mentor Icon.

H. CONCEPT ART

This section provides a graphical depiction of how the *LifeLine* application would look in its operational form. It is an interpretation that is designed to be simple to navigate and provide an ease of use to all levels of users. This representation was created utilizing the Pencil Project program to create the pictorial of a tablet.

Profile creation (Figure 26) begins with the selection of the “CREATE A PROFILE” button on the homepage of the application. Once the button is selected, users complete fields (USERNAME, PASSWORD, and EMAIL ADDRESS) that will identify their profiles. Completion occurs upon the selection of the “SUBMIT” button.



Figure 26. Profile Creation

Once a profile is successfully created, the user(s) are brought back to the homepage to login with their recently created credentials (USERNAME, PASSWORD). By clicking the *LifeLine* button the user is directed to the second level of the application, as depicted in Figure 27. This page allows the user(s) to select either the “*AdviceLine*” or “*MentorLine*” button to transition to either of the functionalities.



Figure 27. Transition to 2nd Level, *AdviceLine* or *MentorLine*

Following a successful login, users are given a choice between continuing with either *AdviceLine* or *MentorLine*. The transition to *AdviceLine* is shown in Figure 28. Once the *AdviceLine* button is selected, users are taken to a fillable form that enables them to select any of the Supply Corps lines of operation (Supply Chain Management, Acquisitions & Contracting, Operational Logistics, or Financial Management) in addition

topics have been added (Guidance & Regulations, Ethics, or Innovation) to support any concern a Supply Corps officer might have. To enhance the communication process, a section has been added to provide a detailed description of the dilemma/concern. An option to submit the request anonymously can be achieved by the selecting the “Anonymous Submission” button. This creates a unique series of numbers that is affixed to this request and paired with the user’s email address (not visible). Upon completing each section, the active submission form is submitted via the “Submit” button.



Figure 28. Accessing *AdviceLine*

For *MentorLine* progression, the user would select the “*MentorLine*” button. This would bring the user to a profile creation page to be completed by potential protégés or mentors. As shown in Figure 29, the transition provides two options for profile creation.



Figure 29. Accessing *MentorLine*

Profile Creation, shown in Figure 30, is achieved by completing the pre-loaded sections of the page (either protégé or mentor). There can be an optional addition of a photograph to enhance the user's experience. The required sections (First Name, Last Name, Current Rank, Alma Mater, Commissioning Source, Current Geographical Location, and Email Address) were chosen to assist in the framing of the profile. Once all necessary sections are completed, a click of the "Submit" button solidifies the user's *MentorLine* profile.



Figure 30. Protégé and Mentor Profile Creation.

The protégé or mentor is then taken to the *Query Page*, shown in Figure 31. This page allows the user to narrow their submission to a specific set of parameters provided. These selections will be utilized to pair their submissions with either a mentor or a protégé that has selected the same topics. Upon completion of this form, a protégé would select the "Query Active Mentors" button and a mentor would select the "Save Mentor Profile" button.



Figure 31. Submitting an Active Query or Mentor Profile to the Profile Bank.

A mentor's *Query Page* is sent to a Profile Bank that stores these active submissions until a time that the mentor decides to be removed from the process. A protégé's *Query Page* is paired with an active mentor page and returned to the user (protégé) for review. A user's page that has responses from both *AdviceLine* and *MentorLine* is shown in Figure 32. *AdviceLine* responses are time stamped to identify when a response was sent to the user from the *LifeLine Cell*. *MentorLine* pairings are identified by the red circle with a number in the center. This informs the user how many pairings in the database his/her query submission has received.



Figure 32. Responses from *AdviceLine* and *MentorLine*.

These graphical representations of the application are not designed to be all-inclusive. The intent is to provide a general framework that can be understood and transformed into an alpha/beta model for which decisions on the practicality and usability of the application can be made. The expectation of the authors is that this application, if created, serves the purpose of encouraging an ever-growing Supply Corps populace to seek educated, informed assistance when faced with adversity. It should also serve as an advocate of encouraging dialogue within the community to support the growth of its junior officers and inspire senior officers to make the investment by sharing their corporate knowledge.

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VII. CONCLUSION

We begin by answering the research questions that we posed in Chapter I.

1. Do Supply Corps officers feel pressured by their superiors to procure or acquire material that might conflict with rules and regulations?

The data reflects that on average, officers tend to feel pressure *Less Frequently*, but 10% have felt obligated to seek procurement methods outside of normal processes. Pressure from superiors is not completely absent; a small percentage of officers have experienced some undue influence to operate outside the prescribed limits in some manner. When these situations arise, the Supply Corps officer must be aware of the sources that are available to aid in the execution of their duties. Maximum support to the officer is necessary to ensure overall mission success with compliance to the rules and regulations.

2. Do Supply Corps officers feel uncomfortable seeking help from their next higher echelon commands and do they ask for help from fellow officers at their command?

The overall response from the population sampled showed that they were comfortable with higher echelon support, but that the rate of responsiveness was not as high as one would expect. This could be a result of the number of units that are being supported overall in comparison to size of the support staffs. The *AdviceLine* feature of *LifeLine* could provide additional resource support to Supply Corps officers by disseminating their issues across a greater spectrum of logistics professionals. It would not restrict their requests to only a small geographical area of potential contacts. Instead there is a greater likelihood that their issue can be resolved at a centralized location by subject matter experts.

3. Which form of mentoring do officers utilize more often?

The Supply Corps officers polled showed that there is a desire for a formal mentoring program, but that informal programs tend to be utilized to a greater degree. The *MentorLine* feature of *LifeLine* could bridge the gap by providing a formalized program in an informal environment. The function would provide the ability for users to

seek out officers without the restrictions of geography or formal introductions. This cultivates a relationship based on the goal of a formal mentoring program while ensuring officers are participating in the networking on their own accord, seeking to enrich the knowledge-base of the community.

4. How much interest is there in the Supply Corps community to create a mobile application that they can use to propose questions anonymously or search for a mentor through a search parameter database?

The data reflected that 68.38% of the population would be likely to utilize an application that enabled them to propose a question anonymously. This is one of the proposed options that can be implemented in *AdviceLine*. Of that sample size, 11.76% reported that they would be *Very Likely* to use a mobile application for that feature. The data subsequently showed a greater interest in the mentoring function of the application. The populace reported that 77.21% would find some level of value in the proposed features that *MentorLine* provides, with 71.32% at least *Somewhat Likely* to utilize it, and 62.31% would use it more than once.

5. Would the average Supply Corps officer consider using a mobile application like LifeLine?

The overall responses show that there is a demand signal for an application that provides a service such as *LifeLine*. It is our recommendation that further analysis and research be dedicated to identifying any further features that can be leveraged within the mobile application. We are confident that our results show there is a current need and that transition to the next phase (development and testing) is justified in this report.

The results from the survey concurred with the hypothesis that the Supply Corps is a Clan-centric community. It also uncovered several issues in the Hierarchy culture analysis. The community should be concerned when there is an issue with the clarity of the rules and regulations. Additionally, 32% of the respondents have procured outside the set guidance is cause for alarm. The Adhocracy culture analysis showed officers hesitate to propose innovative ideas or solutions and also a lack of responsiveness of support entities. These multiple concerns exacerbate the problem and could lead to recurrent

adverse actions on the part of Supply Corps officers. *LifeLine*'s features are designed to alleviate some of these concerns by providing a readily available option for officers and at the same time cater to the changing demographic of the community.

The Supply Corps is already using mentoring to relieve these pressures. Great effort is taken to focus members on mentoring and managing the relationship. But the changing demographic of today's military means catering to the generation that sees decentralized, horizontal relationships as the preferred method for seeking advice. If the Supply Corps wants to maintain any innovative advantage over other communities and the private sector it must facilitate informal relationships using electronic methods that appeal to future generations.

Almost 80% of the sample is at least *Somewhat Likely* to use a web-based application to search for mentors and use it at least *Occasionally*. When asked the likelihood of using electronic methods to find answers to difficult issues they might face in their jobs, 68% reported being at least *Somewhat Likely* to use such a method.

It is worth repeating that the millennial generation will be the majority in ten years. They already comprise 56.6% of the active duty officers in the DoD. But even that generation will be giving way to Generation Z, who are more dependent and capable with mobile technology. *LifeLine* fills two gaps: facilitating mentoring for a generation that prefers using technology to form informal bonds, and providing an innovative, focused approach to problem solving that also appeals to this new generation.

A. RECOMMENDATIONS

To ensure a successful roll-out of this application, we determined there are several milestones that should be met. The following actions are recommended.

1. Standalone vs. Subset of eSUPPO Application

Based on the feedback from the information contained in the survey, the *LifeLine* application would be better suited within the current construct of the NAVSUP's eSUPPO application. The results showed that 80.51% of the population was opposed to a standalone application. This would increase the functionality of the current mobile

application from a source of information to an instrument for users to interface with support entities and mentors. It would also provide a centralized location of support features for users to access.

2. Notification

Once the development of the application is complete, tested, and fully operational, the community must be notified to ensure maximum awareness of the application's purpose, capabilities, uses, and its limitations. This can be disseminated by a "Flash from the Chief" (direct message from the Chief to all Supply Corps officers), an article in *The Navy Supply Corps Newsletter* (quarterly periodical), or a slide added to the annual Supply Corps Roadshow Brief. It will be important to stress the intentions of the application and thwart any misconceptions that this is not a hot-line complaint model to address gripes or grievances.

3. Data Collection

LifeLine would also serve as a data collection source of current issues within the community and provide awareness to senior leadership of organizational trends. More importantly, it has the ability to capture these current problems and solution sets that can be filtered back to the Basic Qualification Course at Navy Supply Corps School. The information obtained can be inserted directly into the curriculum to educate newly commissioned ensigns in the community of issues and common problems that are occurring out in the fleet.

B. OPPORTUNITIES

Dependent on the overall demand for *LifeLine*, and to further encourage use, there is an option to implement an incentive program. This could be achieved using two different formats: non-monetary or monetary.

1. Process

Both approaches (non-monetary and monetary) would consist of the same processes. The *LifeLine* cell will select several significant, innovative, and/or

contributory ideas to increase the health of the Supply Corps community. Further, precepts and criteria could be determined by the members of the cell. The nominees would then be forwarded via email to a council of Supply Corps captains for their recommendation. The two most popular issues would then be forwarded to the Chief of the Supply Corps for selection. The hand-selected winner would be announced via the same format as a “Flash from the Chief.”

2. Non-monetary Option

In addition, and at the Chief of Supply Corps’ discretion, he/she could submit a Letter to the Board for the officer’s official record. The Letter to the Board would be looked upon favorably when reviewing an officer’s record for promotion to the next rank.

3. Monetary Option

Sponsorship of this program could be solicited from an affiliated organization (i.e. Navy Supply Corps Foundation, Navy League). Once sponsorship is obtained, a plaque/keepsake and a cash award could be affixed to the program. This award process should only be utilized to further enhance the overall usage of *LifeLine* to bring about more innovative or creative ideas to better the community.

C. SUMMARY

This tool has the potential to elevate the level of support provided to Supply Corps officers exponentially, either through the problem-solving functions of *AdviceLine* or by creating a robust foundation of mentorship of *MentorLine*. *LifeLine* will benefit the community’s organizational culture by forming more balanced and succinct quadrants when measured to the CVF, more conducive to the Supply Corps’ standards. The mobile application, as the name suggests, will serve as a life line in a trying situation and/or to facilitate the Supply Corps officers’ careers while creating an exciting investment in their professional development.

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APPENDIX. SURVEY QUESTIONS

- Q1 What is/was your rank?
- Q2 Are you currently active duty, full-time support or retired?
- Q3 What is your time in service in years? (Please use whole numbers)
- Q4 What is your current assignment operational or ashore?
- Q5 Do you own a Smartphone or Tablet Device?
- Q6 How often do you utilize applications (apps) on your Smart Phone or Tablet Device?
- Q8 Do you utilize an informal or formal mentoring program, or both within the Supply Corps?
- Q7 Which program do you use more often (Formal or Informal) in your role as a mentee or mentor?
- Q9 Were you assigned a mentor at any time?
- Q10 How often do you contact your mentor?
- Q15 What frequency is your contact with your mentor?
- Q10a As a mentor, how often do you contact your mentee?
- Q11 How familiar are you with your mentor?
- Q12 Does your mentor offer advice freely and clearly?
- Q13 How interested would you be in participating as a mentor to help cultivate Supply Corps officers throughout their service?
- Q14 How much value do you find in a formal mentor program?
- Q16 How often do you utilize face-to-face communication when addressing issues, concerns or questions to higher echelon commands or support commands?

Q17 How often do you utilize telephone communication when addressing issues, concerns or questions to higher echelon commands or support commands?

Q18 How often do you utilize email communication when addressing issues, concerns or questions to higher echelon commands or support commands?

Q20 How likely are you to use an application (App) on your Smart Phone or Tablet Device that allows you to pose a question, anonymously, to higher echelon commands and support commands?

Q21 How likely are you to use an application (App) on your Smart Phone or Tablet Device that allows you to address an issue, anonymously, to higher echelon commands and support commands, without disclosing your identity?

Q22 How likely are you to use a tool that could put you into contact with mentors, who are actively available for counseling that can be determined based on your desired topics of discussion (promotion boards, record screen, billet quality, geographical location, recommendations, etc.)?

Q23 During your career, have you ever felt pressured to purchase or acquisition material or services contrary to established regulations, rules, publications or law?

Q24 During your career, have you ever felt pressured to purchase or acquisition material or services outside of normal requisitioning procedures due to an impending timeline (e.g., deployment or underway)?

Q25 During your career, have you ever felt pressured to purchase or acquisition material or services outside of normal requisitioning procedures due to mission requirements (e.g., deployment or underway)?

Q26 Have you ever felt as though you may face repercussions for not purchasing, procuring or otherwise acquiring materials and services, contrary to established guidelines and regulations?

Q27 How often did you rely on other waterfront Supply Officers for material support (supplies and services) or guidance on how to support your own mission within the scope of your job?

Q28 How often did you rely on senior Supply Officers outside your chain of command for guidance on how to support your own mission within the scope of your job?

Q29 How supportive do you feel the Supply Corps is of your career goals?

Q30 Compared to other communities, do you feel the Supply Corps is effective at development of its officers, using tools such as mentoring, Road Shows, and publications such as the Flash from the Chief?

Q31 How inclined were you during your operational tours to contact support entities for assistance (i.e. TYCOM, GROUP, ATG, NFMT)?

Q32 How often did you contact upper echelon commands (GROUP, TYCOM, etc.) to find solutions to problems?

Q33 How often did you contact assist teams (NFMT, ATG, etc.) to find solutions to problems?

Q34 How likely were you to contact upper echelon commands (GROUP, TYCOM, etc.) to make suggestions about potential solutions to problems?

Q35 How likely were you to contact assist teams to make suggestions about potential solutions to problems?

Q36 During any of your tour(s) where you had fellow Supply Corps Officers in your command, how inclined were you to contact your higher echelon staff for support?

Q37 In any of the above instances, how readily available were the staffs to your inquiry?

Q38 In any of the above situation, how often were you limited by geographical distance to the support entities?

Q39 How responsive were those entities to innovative ideas that you may have had?

Q40 What was your comfort level in contacting those entities for assistance?

Q41 How valuable would you find an electronic mentor database where you can search for a mentor/mentee that shares the same career paths, interests, goals?

Q42 If the Supply Corps created a web-based application that you could search for a mentor/mentee, how likely are you to use such an application?

Q43 If the Supply Corps created a web-based application that you could search for a mentor/mentee, how frequently would you use such an application?

Q44 If the Supply Corps created an application for you to seek answers anonymously to difficult issues that you may not feel comfortable asking to your TYCOM or higher echelon, how likely are you to use such an application?

Q45 If the Supply Corps created an application that could be used for mentoring or asking questions anonymously, would you prefer it be a standalone application or part of eSUPPO?

Q46 If the Supply Corps created a billet(s) to monitor this new application that was placed at NAVSUP Headquarters, Mechanicsburg, PA, how interested would you be in taking this job?

Q47 During your operational tours, how clear have you felt the laws, rules, regulations, or clarifying instructions were to ensure you could properly procure materials and services without accidentally breaking those rules?

Q48 Have you ever found out after a procurement action that your methods were against those rules, regulations or laws?

Q49 If yes, did you receive guidance from an assist team prior to execution?

Q50 How likely are you to rely on that entity's advice in the future prior to procurement actions with respect to uncertain rules or regulations?

Q51 During your operational tours, how often have rules and regulations made your job in procuring vital mission equipment, material, or services for your command(s) difficult or impossible?

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